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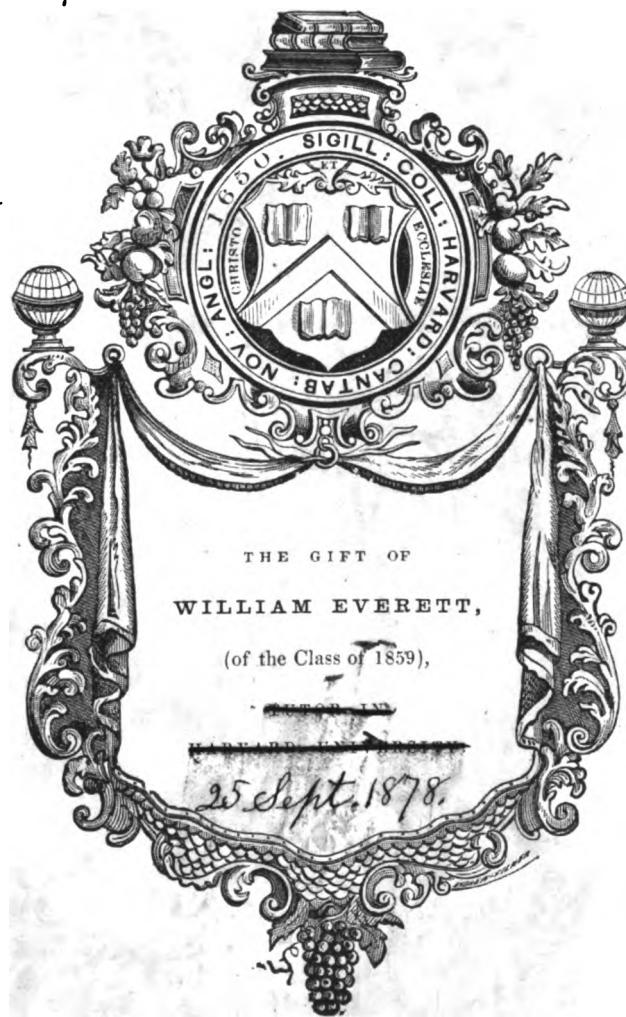
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THE GIFT OF
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(of the Class of 1859),

25 Sept. 1878.

COMMERCIAL TARIFFS
AND
REGULATIONS, RESOURCES, AND TRADE,
OF
THE SEVERAL STATES OF EUROPE AND
AMERICA,

TOGETHER WITH
THE COMMERCIAL TREATIES BETWEEN ENGLAND
AND FOREIGN COUNTRIES.

PART THE SIXTEENTH
STATES OF MEXICO.
BY JOHN MACGREGOR.

Presented to both Houses of Parliament, by Command of Her Majesty.

LONDON:

PRINTED BY CHARLES WHITING, BEAUFORT HOUSE, STRAND.

1846.

~~1878~~
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1878, Sept. 25.
(Gift of
Prof. William Everett,
of Cambridge.
(H. M. 1857.)

TO THE

LORDS OF THE COMMITTEE OF PRIVY COUNCIL FOR
TRADE AND PLANTATIONS.

MY LORDS,

IN obedience to Your Lordships' commands, I have continued the arrangement of the Customs' Tariffs and Regulations, and of the Resources, Trade, Monies, Weights, and Measures of foreign countries, together with the Commercial Treaties of Great Britain with those States; and the SIXTEENTH PART of this Series I have now the honour to present to Your Lordships.

This Part contains the several Treaties of Commerce and Navigation in force between the United Kingdom and the States of Mexico—also the Customs' Tariff—Commercial Regulations—the Monies, Weights, and Measures, and various Statements relative to the Trade, Navigation, Agriculture, Manufactures, and Finances, of that Republic.

I have the honour to be,

MY LORDS,

Your Lordships' most Obedient

Humble Servant,

JOHN MACGREGOR.

Board of Trade, 26th August, 1846.

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XVI. SPANISH AMERICAN REPUBLICS.

DIVISIONS OF SPANISH AMERICA UNDER THE MONARCHY.

PREVIOUSLY to the independence of the countries, in North and South America, comprised under the regal government of Spain, the Spanish colonies were administered in the following arrangement: *viz*,—

- 1.—In NORTH AMERICA—The Viceroyalty of New Spain, and the Captain-generalship of Guatemala.
- 2.—In SOUTH AMERICA, the Viceroyalty of New Granada, the Captain-generalship of Caraccas, the Viceroyalty of Peru, the Viceroyalty of La Plata, or Buenos Ayres, and the Captain-generalship of Chili.

The population of these vast regions, we believe never to have been, even as an approximate statement, ascertained. The following table is compiled on the authority of Humboldt, Alcedo, and others; and is estimated to include the natives and slaves:—

COUNTRIES.	Inhabitants.	Acres.	CAPITALS.	Inhabitants.
New Spain.....	number. 6,500,000	number. 1,690,000	Mexico	number. 137,000
Guatemala	1,260,000	186,000	Guatemala	19,000
Cuba.....	660,000	43,350	Havannah.....	35,000
Puerto Rico.....	136,000	3,865	Puerto Rico	very populous. 80,000
New Grenada.....	1,800,000	...	Santa Fé de Bogota.....	
Caraccas.....	900,000	...	Caraccas	
Peru.....	1,200,000	8,350,000	Lima.....	
Chili.....	800,000	...	Santiago.....	36,000
Buenos Ayres or La Plata.....	1,100,000	...	Buenos Ayres	60,000
Making.....	14,336,000	5,973,915		

The above is exclusive of the unnumbered Indians of the Viceroyalty of La Plata. The Portuguese subjects in Brazil were estimated at the same time, to amount to 3,000,000: of whom one million and a half were slaves, one million Indians, and the remainder of European race.

Of the above total of 14,336,000 souls, there were 3,000,000 whites born in the country, 200,000 Europeans, and the remaining 11,136,000 were Indians, negroes, and mixed races, or castes, of which the Indians amounted to by far the greater proportion. The negroes in Caraccas amounted to 54,000, in Cuba to 212,000; the other states having comparatively very few slaves.

I.—VICEROYALTY OF NEW SPAIN.

Under the Viceroy, and the Supreme Councils (*Audienzas Reales*), New Spain was sub-divided into the three Provinces of *New Mexico*, and *Old and New California*, and the twelve intendencies of *Durango*, or *New Biscay*, *Sonora*, *St. Louis Potosi*, *Zacatecas*, *Guadalaxara*, *Valadolid*, or *Mechoacan*, *Mexico*, *Puebla*, or *Tlascala*, *Vera Cruz*, *Oaxaca*, or *Guaxaca*, and *Merida*, or *Yucatan*.

The whole administration may be said to have been under the absolute despotism of the viceroy, the archbishop, and bishops, and the *Audienzas Reales*.

II.—CAPTAIN-GENERALSHIP OF GUATEMALA.

The account which, in its spirit, and in the simplicity of its description and statements, conveys the best proof of authenticity relative to this captain-generalship, under the Spanish sovereignty, is the work of Don Domingo Quarras, a native of the country. According to his authority, the government of this kingdom, as it was then named, was administered by the royal audiencia of Guatemala, the president of which was governor and captain-general of the kingdom, having a great number of inferior officers for the better regulation of the provinces. The spiritual affairs were directed by the Archbishop of Guatemala and three suffragans, except in the small district of Peten, which was under the charge of the Bishop of Yucatan. The ecclesiastical division of the kingdom consisted of four bishoprics, viz., Guatemala, which as metropolitan, extended over the whole kingdom; but the peculiar territory of the archbishopric of Guatemala extended 214 Spanish leagues from the plains of Moto-cinta, the most westerly village of the diocese, to the boundaries of the curacy of Conchagua, the most easterly; and 116 leagues from the Gulf on the northward, to the shores of the Pacific southward. In this district there were 108 curacies, twenty-three collated curacies of regulars, sixteen under charge of the Dominicans, four of the Franciscans, and three of our Lady of Mercy; 424 parochial churches, and 539,765 inhabitants. This bishopric was erected by Pope Paul III., under a bull bearing date December 18, 1534; from that period to 1809 the chair has been occupied by seven archbishops and sixteen bishops. The second bishopric is Leon, having jurisdiction over the intendancy of Nicaragua, and the government of Costa Rica: in it there were thirty-nine curacies, three establishments for the conversion of infidels, eighty-eight parochial churches, and 131,932 inhabitants. From its erection to the year 1809, this diocese has had thirty-seven bishops. The third was Ciudad Real, its jurisdiction comprehended the three divisions of the intendancy of Chiapa; it contained thirty-eight curacies, 102 parish churches, and 69,253 inhabitants. The fourth is Comayagua, the jurisdiction of which was confined to the intendancy of Hon-

duras : within its territory there were thirty-five curacies, one establishment for the conversion of infidels, 145 parish churches, and 88,143 inhabitants.*

The civil government of the kingdom was divided into fifteen provinces, of these eight were superior alcaldias, viz., Totonicapan, Sololá, Chimaltenango, Sacatepeques, Zonzonate, Verapaz, Escuintla, and Suchiltepeques ; two were corregidorships, viz., Quezaltenango, and Chiquimula ; one a government, Costa Rica ; and four were intendancies, Leon, Ciudad Real, Comayagua, and St. Salvador. Five of these provinces were situated on the shores of the Pacific ; five on the Atlantic, and five interior.

In Guatemala, as well as in all other parts of Spanish America, the real power exercised by the bishops and other ecclesiastics, was much greater than that exercised by the civil government.

III.—VICEROYALTY OF NEW GRANADA.

New Granada was bounded on the north by the Caribbean Sea, and the province of Costa Rica in the kingdom of Guatemala ; on the east by the government of Caraccas, Spanish Guiana, and Portuguese Guiana ; on the west by the Pacific Ocean ; and on the south by the river Maranon, and the viceroyalty of Peru : it extended from 3 deg. 30 min. south latitude, to 12 deg. north latitude.

This extensive viceroyalty was divided into numerous provinces, governed by intendants and governors under the orders of the viceroy.

These provinces were named Jaen de Bracamoros, Quixos, Maynas, Quito, Tacamees, Popayan, Antioquia, Santa Fé, San Juan de los Llanos, Merida, Santa Marta, Cartagena, Choco, Darien, Panama, and Veragua ; the three last of which were known by the distinctive appellation of Tierra Firme.

IV.—CAPTAIN-GENERALSHIP OF CARACCAS.

Caraccas is named after a tribe of Indians, and given to the country which included New Andalusia, or Cumana, with Margarita, Barcelona, Venezuela or Caraccas Proper, Maracaybo and Coro, on the coast of the Caribbean Sea, Varinas and Spanish Guiana, in the interior.

It was bounded on the north by the Caribbean Sea, east by the Atlantic,

* In computing the number of inhabitants of the kingdom : parishioners of the dioceses, and inhabitants of the provinces, recourse has been had to the census taken by order of the King of Spain in 1788, as being the most recent and complete that could readily be consulted, because it gives the numbers in the separate provinces and districts. It may, however, be considered too low ; for, by comparing it with the enumerations made by order of the bishops, there has been found a material discrepancy ; if we add together the numbers of the different districts of the bishopric of Comayagua in the royal census of 1778, the amount will be no more than 81,148 ; whereas, that taken by order of the bishop in 1791, makes the number 98,501. In Chiapa, in 1778, the number given was 62,253, but, by a census in 1796, it was 99,001 : similar increase has been perceived in the other two dioceses.—*Alcedo.*

south by Peru and Dutch Guiana, and west by the kingdom of Santa Fé or New Granada.

Caraccas was subdivided into seven provinces: viz., New Andalusia or Cumana, Barcelona, Venezuela or Caraccas Proper, containing Venezuela and Coro, Maracaybo, Varinas, and Guiana, with the detached government of the island of Margarita; the whole of these were under the superintendence of a personage of the highest rank, who was styled captain-general of the provinces of Venezuela, and the city of Caraccas.

V.—VICEROYALTY OF PERU.

Peru, as a viceroyalty, was bounded on the north by the southern provinces of Quito, Maynas, Jaen de Bracamaros, and Guyquil; on the west by the Pacific Ocean; on the east, by the Portuguese possessions, and the provinces of Buenos Ayres; and on the south, by the government of Chili and the viceroyalty of La Plata. It was formerly the most extensive kingdom of South America, but in the year 1718 the provinces of Quito in the north, as far as the river Tumbez, were annexed to the government of New Granada, and in 1778, Potosi, and several other of its richest districts, on the east, were annexed to the viceroyalty of Buenos Ayres. It extended, therefore, from the Rio Tumbez, in 3 degrees 30 minutes, south latitude, to the chain of Vilcanota, in 15 degrees south latitude.

Its eastern settlements bounded on Colonna, or the land of the missions, the Pampas del Sacramento, and the savage nations of the Pajonal, a vast steppe covered with long grass.

Peru was, as a viceroyalty, divided into seven intendancies, viz.—Truxillo, Tarma, Huancavelica, Lima, Huamanga, Arequipa and Cuzco, each of which is governed by an intendant, nominated by the viceroy, a nobleman of the highest rank, who was sent from Spain, and whose appointment was one of the first consequence in Spanish America.

The salary of the viceroy was only 12,600*l.*, but enormously augmented by the monopoly of certain manufactures, by grants, and by the colonial situations and titles he can confer.

Peru was the seat of two royal audiencias, that of Lima and that of Cuzco. The audience of Lima was established in 1543, and was composed of a regent, eight oidores or judges, four alcaldes, and two fiscales, the viceroy being president. It was divided into three chambers, and was the superior court of appeal for the whole government. The royal treasury was the next great office of state, composed of the viceroy, the regent of the council, the dean of the tribunal of accounts, and other officers, and the revenue appeals were determined by the tribunal of accounts.

VI.—VICEROYALTY OF BUENOS AYRES, OR LA PLATA.

This viceroyalty was bounded on the north by the vast steppe of the Amazonas, or, according to some authorities, by that great river itself; on the east the territories of the Portuguese and the Atlantic ocean were its limits; on the west it was divided by the Andes from Peru and Chili, having also a province bordering on the South Sea; and on the south its boundary was the Pampas and Patagonia.

From Cape Lobos in the Atlantic to the most northerly settlements on the Paraguay, its extent was estimated at 1600 miles; and from Cape St. Antony, the mouth of the Plata, to the Andes of Chili, its breadth was about 1000 miles.

This extensive region was erected into a viceroyalty in 1778, and at that time several provinces were added to it from Peru and Chili. It was divided into five governments, Los Charcas, Paraguay, Tucuman, Cuyo, and Buenos Ayres, which were again subdivided into departments and districts.

The whole was governed by a viceroy, and the ecclesiastical affairs of the country were under the guidance of the archbishop of La Plata, in Charcas, who had six suffragans.

VII.—CAPTAIN-GENERALSHIP OF CHILI.

The kingdom of Chili or Chilé was the most southerly of the governments which composed the Spanish American empire.

It extended from the 24th degree to the 45th degree of south latitude, and comprised the continent bounded by the ocean on the west, and the Andes on the east; with the islands on its coasts. Its greatest length was about 1260 miles, and its greatest breadth 300.

It was bounded on the north by La Plata, and from Peru it was separated by the desert and province of Atacama; on the east it was bounded by the Buenos Ayrean provinces of Tucuman and Cuyo, and by Terra Magellanica, or Patagonia; on the west, the Southern Pacific washed its shores; and on the south, the unconquered and desert countries of Terra Magellanica, completed its limits.

Chili was governed by a personage of high rank, appointed by the court of Madrid, and who held the title of Captain-General of the kingdom of Chili, having under his orders all the inferior governors of departments and military posts. He was likewise commander-in-chief of the Chilian forces, and president of the court of the royal audiencia of Santiago.

Chili was divided into continental and insular partidos, or departments, over which intendants, or lieutenants, presided.

The continental part, or Chili Proper, was divided into thirteen partidos, which extend from the twenty-fourth degree to the thirty-seventh degree of south latitude, and were named Copiapo, Coquimbo, Quillota, Aconcagua, Meli-

SPANISH AMERICAN REPUBLICS.

ylla, Santiago, Rancagua, Colchagua, Maule, Itata, Chillan, Puchucay, and Hualquilemu. From the thirty-seventh degree to the islands of Chiloe, the country was chiefly under the power of three native tribes, the Araucanians, the Cunches, and the Huilliches.

Insular Chili, comprehending the archipelagos of Chiloe, and Chonos or Guaytacas, and the Andean parts of Chili were inhabited by independent tribes.

SPANISH AMERICAN REPUBLICS.

ALL the power of Spain has disappeared in the great American empire, and we have now to refer to its subdivisions as republican governments.

POPULATION of each, as stated in the American Almanac for 1845.

COUNTRIES.	Popula- tion.	CAPITALS.	COUNTRIES.	Popula- tion.	CAPITALS.
SPANISH REPUBLICS OF NORTH AMERICA.	number.		Spanish Republics of S. America (cont.)	number.	
Mexico.....	7,044,140	Mexico.	Bolivia.....	1,500,000	Chuquisaca.
Central America.....	2,000,000	San Salvador.	Chili.....	1,500,000	Santiago.
Yucatan.....	589,948	Merida.	Venezuela.....	900,000	Caracas.
Haiti.....	933,000	Cape Haytien.	Equator.....	600,000	Quito.
Texas.....	250,000	Austin.	Isthmus of Panama.....	...	Panama.
SPANISH REPUBLICS OF SOUTH AMERICA.			Paraguay.....	200,000	Assumption.
Argentine Republic.....	2,000,000	Buenos Ayres.	Uruguay.....	150,000	Monte Video.
Peru.....	1,700,000	Lima.	EMPIRE.		
New Grenada.....	1,931,584	Bogota.	Brasil.....	5,130,418	Rio Janeiro.

* According to the census prepared in 1841, by the Mexican " National Institute of Geography and Statistics. But this number includes Yucatan and Texas.—See Statistics hereafter.

The above must be considered as little more than approximate estimates.

MEXICO.

DESCRIPTION AND NATURAL RESOURCES.

IF the population, and productive industry, and the commerce of Mexico were commensurate with its natural fertility, and with the extent of the earth's surface which it comprises, it would have been at the present time one of the wealthiest and most powerful states of the world.

The united states, or federal republic of Mexico lies between 15 deg. and 42 deg. north latitude; the most southern limit being near Port Angelos (15 deg. 10 min. north latitude) and the most northern near Cape St. Sebastian

The most eastern point is the low shore on the eastern shore of the peninsula of Yucatan, near the island of Cancun, which extends to near 86 deg. 48 min. west longitude; and the most western point is Cape Mendocino, in 124 deg. 40 min. west longitude. Yucatan, however, although nominally one of the federal states, is, *de facto*, an independent government.

On the west and south, Mexico is bounded by the Pacific Ocean; and on the east by the Gulf of Mexico. Its south-eastern angle borders on central America and the British settlement of Belize. Between Mexico and Central America, the boundary-line is not exactly known, further than that it commences somewhere near the Barra de Tonato, thence north to the volcanic region of Soconusco, and thence irregularly over the slopes of the table-land of Guatemala to the Rio Usumasinta; it then follows the western side of the elevated country of Yucatan, somewhat south of 18 deg. north latitude to the Rio Hondo, which as far as the sea, is considered the boundary between Yucatan and Belize.

On the north, and partly on the east, Mexico borders on the United States of North America. The northern boundary-line commences on the Pacific in 42 deg. north latitude and runs along that parallel to the Rocky Mountains; on the east of which range, before the independence of Texas, it followed the course of the Arkansas river to the 100th meridian, thence due south to the Red River, which it followed as a boundary as far as 94 deg. west longitude, and then the line ran due south to the River Sabina, and along that river to the Gulf.

From the boundary of Guatemala to 42 deg. north latitude, Mexico is about 2400 miles in length. Its breadth varies greatly. At the Isthmus of Tehuantepec, where it is narrowest, the distance is little more than 130 miles across. Its greatest width, when it included Texas, was near 32 deg. north latitude, whence it extended about 1230 miles from the Rio Sabina to Upper California. By the annexation of Texas to the United States of North America, this breadth is reduced to the distance between the Rocky Mountains bounding New Mexico, and the United States, in latitude 42 deg. north, and longitude 109 deg. 45 min. west, and Cape Mendocino, in latitude 40 deg. 30 min. north, and longitude 124 deg. 10 min. west, or about 700 miles.

Our accounts of Mexico are not satisfactory. The country has been so imperfectly explored,—that it is even asserted that there are within it independent nations, living in large towns, which are only known by report. Our brief descriptions are necessarily imperfect: but we have adhered to what appeared to us the best Spanish, English, and American accounts; not only of Mexico but of the other Spanish American republics. Our most authentic recent accounts, excepting the work of M. Chevalier, are all written by citizens of the United States. We have but little information that can be relied on, by British travellers in Mexico, with the exception of the valuable and com-

prehensive work of Mr. Ward,—who resided in the country as minister, after its independence of Spain, in 1826. The citizens of the United States have exclusively, since 1840, acquired a more accurate knowledge of the Mexican territories, especially of the northern parts, than ever was known before, unless it were formerly by the Jesuits, and the ecclesiastics of the Indian missions.

The works of Clavigera, Alcedo, Humboldt, and Ward, are the usual authorities in describing Mexico. The work of Latrobe, and the notes of Poinsett, are also referred to. The most recent accounts upon which we can rely as to the present state of Mexico, and the best local descriptions, are found in the work of Mr. Brantz Mayer, who was Secretary to the United States Legation at Mexico, in 1841 and 1842; of New Spain or Northern Mexico, in Mr. Gregg's work on the "Commerce of the Prairies and Santa Fé; and of California, in that admirable work, "The Account of the United States Exploring Expedition, under the Command of Captain Wilkes;" and of California, in the "Narrative of the Exploring Expedition, in the Years 1842, 1843, and 1844, under Captain Fremont, of the Topographical Enquirer, to the Rocky Mountains, Oregon, and North California;" from each of these works, we have extracted and condensed the most instructive information, relative to a country to which great interest must in future be directed. Of many parts there is certainly little known; but we have more certain accounts, through the indefatigable perseverance of American colonisers, of the towns and districts through which the old Spanish roads and routes passed, and of California and Northern Mexico, than we possess of other parts of Spanish or Portuguese America.*

TERRITORY.—POPULATION AND DEPARTMENTS.

ACCORDING to the best authorities, the territory of the Mexican republic contains an area of 1,650,000 square miles, exclusive of Texas: and the area of the United States of Anglo-America may, exclusive of Texas, be estimated at 2,300,000. "If we allow," says Mr. Mayer,† "that the square mile will maintain, under ordinary careful cultivation, a population of 200 persons, we shall

* We have just received a recently-published Journal of Travels in Mexico, by Mr. Gilliam, who had been appointed United States consul in California, to which he does not appear to have proceeded further than to the neighbourhood of the Gulf. This book appears, when confined to mere detail, to contain truthful accounts of the places and people he met with. But the style is ludicrous, inflated, and abounds in, not *Yankeeisms*, but in painful attempts to write sentiments composed of superlative adjectives.

† Mexico. By Brantz Mayer, Secretary of the United States Legation to that country in 1841 and 1842.

have the sum of 330,000,000 for the total ultimate capability of the Mexican soil, and 460,000,000 for the United States.—or, 130,000,000 less in Mexico than in our union."

In 1792, according to a report made to the King of Spain by Conde de Revellagigedo, the population of New Spain, exclusive of the Intendencies of Vera Cruz and Guadalaxara, was as follows:—

CASTES AND CLASSES.	Population.	CASTES AND CLASSES.	Population.
Indians.....	number. 2,319,741	Total brought forward.....	number. 4,483,529
Europeans.....	7,904	To which may be added the population of Vera Cruz and Guadalaxara, according to the estimate of 1803.....	786,500
White creoles.....	677,458		
Different castes.....	1,478,126		
Total.....	4,483,529	Total population, in 1793.....	5,270,029

The Baron Humboldt estimates the population to have been, in the year 1803, 5,837,100; and Mr. Poinsett, in 1824 (from the best data of the period), 6,500,000.

In 1830, Mr. Burkhardt, a German traveller, rates the several classes of Mexicans thus:—

CASTES AND CLASSES.	Population.	CASTES AND CLASSES.	Population.
Indians.....	number. 4,500,000	Brought forward.....	number. 5,506,000
Whites.....	1,000,000	Mestizos, and other castes.....	2,499,000
Negroes.....	6,000		
Carried forward.....	5,506,000	Total.....	7,996,000

The most accurate of the recent calculations, is said to be the one which was made by the government without special enumeration, as a basis for assembling a Congress to form a new constitution, similar to the plan of that adopted in Tacubaya in 1842:—

DEPARTMENTS.	Population.	DEPARTMENTS.	Population.
Mexico.....	number. 1,889,020	Brought forward.....	number. 5,973,484
Jalisco.....	679,311	Sinaloa.....	147,000
Puebla.....	661,002	Chiapas.....	141,300
Yucatan.....	580,948	Sonora.....	124,000
Guanajuato.....	512,606	Queretaro.....	120,560
Oaxaca.....	500,278	Nuevo Leon.....	101,108
Michoacan.....	497,906	Tamaulipas.....	100,068
San Luis Potosi.....	321,810	Cosahuila.....	75,340
Zacatecas.....	273,575	Aguas Calientes.....	69,098
Vera Cruz.....	254,380	Tabasco.....	63,589
Durango.....	162,618	Nuevo Mexico.....	57,026
Chihuahua.....	147,600	Californias.....	33,439
Carried forward.....	973,484	Total, in 1842.....	7,7,015,509

"Since the year 1830, the population of the republic has been dreadfully ravaged by smallpox, measles, and cholera. In the capital alone, it is estimated that about 5000 died of the first-named of these diseases, 2,000 of the second, and from 15,000 to 20,000 of the third. The mortality must have been in a corresponding ratio throughout the territory.

"I am, however, by no means satisfied that the estimates of both Poinsett and Burkhardt are not too high; yet, assuming the statements of 1842 and of 1793 to be nearly accurate, we find in forty-nine years an increase of only 1,774,111 in the entire population. Again, if we assume the population to have been 6,000,000 in 1824, (the year, in

fact, of the establishment of the republic,) we find that, in the course of eighteen years of liberty and independence, the increase has not been greater than 1,044,140.

"In the United States of America, with only 650,000 more of square miles of territory now, and not so large a space at the achievement of our independence, the increase of our population during the first twenty years of freedom cannot have been less than two millions and a half; while, in the course of the last thirty years, it has averaged an increase of rather more than thirty-three per cent, every ten.

"The several castes and classes of Mexicans may be rated in the following manner:—

CASTES AND CLASSES.	Population.	CASTES AND CLASSES.	Population.
Indians.....	number. 4,000,000	Brought forward.....	number. 5,006,000
Whites.....	1,000,000	All other castes, such as zambos, mestizos, mulattoes, &c.....	2,009,509
Negroes.....	6,000		
Carried forward.....	5,006,000	Total.....	7,015,509

"It appears, therefore, that the Indians and negroes amount to 4,006,000, and the whites, and all other castes, to 3,009,509. A very respectable and aged resident of Mexico, who is remarkable for the extent and accuracy of his observations, estimates that, of the former, (or negroes and Indians,) but two per cent can read and write; while of the latter, at a liberal estimate, but about twenty per cent.

"If we take this computation to be correct, as I believe from my own observation it is, and using the estimate of the decree of 1842 for the basis of the population, we shall have:—

CASTES AND CLASSES.	Population.
Of Indians and negroes who can read.....	number. 80,120
Of whites and all others.....	607,628
Total able to read and write out of a population of 7,000,000.....	687,748

"This would appear to be a startling fact in a republic the basis of whose safety is the capacity of the people for an intellectual self-government. Let us, however, carry this calculation a little further. If we suppose that out of the 1,000,000 of *whites*, 500,000, or the half only, are *males*, and of that 500,000, but twenty per cent., or but 100,000 can read and write, we will no longer be surprised that a population of more than 7,000,000 has been hitherto controlled by a handful of men; or that, with the small means of improvement afforded to the few who can read, the selfish natures of the superior classes, who wield the physical and intellectual forces of the nation, have forced the masses to become little more than the slaves of those whose wit gives them the talent of control."—*Mayer's Mexico*.

CONFIGURATION, SOIL, AND CLIMATE.

THE configuration, soil, surface, and climate of Mexico, comprehend every variation of character. Low and unhealthy lands, along many parts of the sea-coast, especially the low plain of Cuetlachtlan, facing the Gulf, along the shores of which sandhills frequently rise. Low lands form only exceptions along the Pacific; and occur at the Bay of Tehuantepec, and at Acapulco; but generally the mountain or table-land approaches the shores of the Pacific and of the southern part of the Gulf of California.

The peninsula of YUCATAN, is one of the provinces or states of Mexico, but politically, as well as physically, almost independent of the Mexican republican government. This state is surrounded on three sides by the sea, the Gulf of Guanajos, or of Honduras, and the Gulf of Mexico. It is bounded on the south by the former province and *alcaldia mayor* of Vera Paz, and on the south-west by Chiapa, and by about 250 miles of Tabasco. It lies between the latitudes 18 deg. and 21 deg. north, and longitudes 87 deg. and 91 deg. west. Its length is about 250 miles from south-west to north-east, and its breadth is about 200 miles from east to west at the widest part. Alcedo describes its climate as—

"A very hot and moist temperature. Its territory is for the most part stony, but fertile. It has no other river throughout the whole of it than that of Lagartos, which is, however, very abundant. (This is not true, several small rivers flow through parts of the state.) It is argued that it has many subterraneous waters, and this is pretty well proved, through certain deep chasms of stone, which they call *zenotes*, and in which water has been seen to run.

"The land is plain, covered with shady trees, and abounding in honey, wax, and cotton, and of the latter they make spun and woven stuffs, which they die of various colours, and which are highly esteemed in all Nueva Espana. It also produces some cochineal, and from the above productions, as well as from some Campeche-wood, and some rigging, which they manufacture, do they maintain a commerce. In its forests are excellent sorts of woods, of which some ships have been built; and one sort of these woods, called *habin*, is so hard that it is impossible to drive a nail into it without first boring a hole. Here are many wild beasts, such as tigers and leopards; also snakes and venomous insects, and a species of spider, which the Indians call *ham*, since, whenever a person is bitten by it, the excruciating pain he suffers causes him to cry out this word, and this he continues doing till he dies, no remedy ever having been found against its fatal influence. Both sheep and neat cattle are scarce in this province, through want of water and pastures; but here are abundance of swine, as well as of all kinds of fruit of a warm climate. On the sea coasts is found much amber."

The recently explored ancient ruins are remarkable. (See Mr. Steven's work.) Mr. Ward considers Yucatan the most sterile and poor state in the confederation. We have no recent account upon which we can place much reliance, and our consular returns (See trade of Mexico hereafter) convey little information relative to Yucatan, a country which may, to a great extent, be considered a wilderness. We believe that portions of this state are susceptible of the most productive tropical cultivation.

TABASCO, which has been politically united to the Mexican republic, but which is but little more than nominally annexed, adjoins on the east Yucatan, and on the south Chiapa, and the kingdom of Guatemala, from whence it is separated by a *cordillera*, or *serrania* of mountains: on the west it is bounded by the province of Oaxaca, in Nueva Espana, and it fronts the Gulf on the north. It is about 180 miles long, and about 60 broad. Alcedo describes it as—

"Of a hot and moist temperature, and the territory is low and plain, but very full of woods in which there are abundance of cedars, brazil, and many other sorts of woods. The country is unhealthy from the abundance of rain, and the prevalence of strong winds, which last for nine months together; but it is very fertile in fruits of the country, such as *mameyes*, *zapotes*, *aquacates*, *quaybas*, and man^u others of a delicate taste, as also in European productions.

"It produces much maize, of which there are three or four crops annually; rice and cocos, which are sent for sale to Vera Cruz; pulse, garden and many medicinal herbs, tobacco, and, above all, *cacao*, this being the most abundant production of any, and that which is the greatest source of commerce; it being also in this that the natives used to pay their tribute to the Emperors of Mexico. It is not less abundant in pepper, which is much esteemed, and of which great quantities are carried to all parts, although of inferior quality to the pepper of the east. The breed of cattle, of all species, has increased greatly in this country; and in the woods there are leopards, *dantas*, small boars, rabbits, deer, monkeys, squirrels, *tapeyes*, *quintes*, similar to stags but smaller; and very many birds, such as pheasants, parrots, quails, hens, pigeons, doves, and an infinite number of others, large and small. Although the cotton-tree be here in abundance, the fruit is made no use of, since it is eaten by the monkeys before it ripens, as also by the squirrels, and other small animals, with which the country is overrun. But all these plagues are less obnoxious than the mosquitoes, of different kinds, which will scarce suffer men to exist; for no one can sleep except covered by a canopy, the heat caused by which is intense.

"This province is watered by different rivers, which fertilise it; but the most considerable is that of its name. The capital is the settlement of the same name, called also De Nuestra Senora de la Victoria."

TABASCO ISLAND, or rather a neck of land, in the south-west part of the Gulf of Mexico, and at the bottom of the Gulf of Campeachy; on it is built the town of Tabasco, in latitude 18 deg. 34 min. north, and longitude 93 deg. 36 min. west. Alcedo says:—

"It is the capital of a province of the same name, and is situate at the mouth of the river Grijalva, seventy-six miles east of Santa Ana, and 127 miles east-south-east of Vera Cruz. It was considerably enriched by a constant resort of merchants and tradesmen at Christmas. The river Grijalva divides itself near the sea into two branches, of which the western falls into the river Tabasco, which rises in the mountains of Chiapa, and the other continues its course till within four leagues of the sea, where it subdivides and separates the island from the continent. Near it are plains, which abound with cattle and other animals, particularly the mountain cow, so called from its resembling that creature, and feeding on a sort of moss found on the trees near great rivers."

The state of Tabasco, naturally fertile, may be considered as chiefly in a wilderness state.

CHIAPA was formerly a province and *alcaldia mayor* of the kingdom of Guatemala; bounded on the north by Tabasco, east by Vera Paz, west by Nueva España, and south-west by Soconusco. It extended, as a Spanish province, eighty-five leagues from east to west, and is nearly thirty across at its widest part. It was under Spain divided into districts, or *alcaldias mayores*, viz., those of Zoques, Chontales, Los Llanos, and Xiquipila. Its climate is of a warm and moist temperature, although in some high parts cold predominates.

"Its woods," says Alcedo, "abound with large trees of pine, cypress, cedar, and walnut; and of others of a resinous kind, from which are extracted aromatic gums, balsams, and liquid amber, tacamaca, copal, &c. It produces also, in abundance, swine, maize, honey, cotton, cochineal, which is only made use of for the purpose of dyeing the cotton; also cacao, and much pepper and achote, or the heart-leaved bixa; also various kinds of domestic and wild birds, especially parrots, which are very beautiful and highly esteemed; a small bird, called toto, less than a young pigeon, with green wings; this is caught by the Indians, who pluck from its tail some feathers, which they prize highly, and then restore it to liberty; it being a capital offence, according to their laws, to

destroy it. The sheep, goats, and pigs, which have been brought from Europe, have multiplied in this province in a most extraordinary manner; so also have horses, which are of such an esteemed breed, that the colts are taken from hence to Mexico, a distance of 500 miles. In the woods breed many *lions* (?) leopards, tigers, and wild boars, a great number of snakes, some being twenty feet in length, and others of a beautiful crimson colour, streaked with black and white. The territory is, for the most part, rugged and mountainous, and watered by different rivers: none of these, however, are of any particular consideration, although that which bears the name of this province is the medium by which the aforesaid productions are carried to the other provinces; and although this province may be accounted comparatively poor, from being without mines of gold or silver, it is, nevertheless, of the greatest importance, as being the outwork or barrier to New Spain, from the facility with which this kingdom might be entered by the river Tabasco. The capital is the royal city of Chiapa, situated on a delightful plain. It is the head of a bishopric, erected in 1538; and has for arms a shield, upon which are two *sierras*, with a river passing between them: above the one is a golden castle, with a lion rampant upon it; and above the other a green palm, bearing fruit, and another lion, the whole being upon a red field. These arms were granted by the Emperor Charles V. in 1535. The cathedral is very beautiful. It contains three convents of the order of St. Francis, La Merced, and St. Domingo; a monastery of nuns, and five hermitages. Its population is scanty and poor, and the principal commerce consists in cocoa-nuts, cotton, wool, sugar, cochineal, and other articles. Its nobility, although poor, are very proud, as having descended from some ancient families of the first nobility of Spain; such as those of Mendoza, Velasco, Cortes, &c. The women suffer great debility at the stomach on account of the excessive heat, and they can never fast long."

This state has not improved since its independence of Spain.

VERA-PAZ was formerly a province and *alcaldia mayor* of the kingdom of Guatemala; bounded north by Yucatan, south-south-west and south-east by Guatemala, west by the province of Chiapa, and east by the Gulf of Honduras. It was, under the Spanish rule, in extent forty-eight leagues from north to south, its widest part. The Missionaries of St. Domingo gave it this name, by order of the Emperor Charles V., who commanded it to be thus named, inasmuch as its natives were conquered merely by preaching, and without bloodshed.

"The country," as described by Alcedo, "is rough and broken, full of deep ravines, with a *llanura* which is half a league in extent, and covered with thick and impenetrable woods. Half of this province is of a mild and benign temperature, and the other half is hot and abounding in mosquitoes of various kinds. The rains here continue nine months in the year, and the province abounds in vegetable productions and cattle, and has many mountains covered with trees, and vast caverns, in which many rivers laving the province, lose themselves. Between two lofty *sierras* is found a cave of very great extent, entirely of stone, within which are formed, by the dripping of waters, several pillars resembling alabaster. In this cave the cold is extraordinary, and the noise of the waters is very great, which, bursting forth at various mouths, forms a lake, which from its depth is seen to have waves like a sea, and from it rises a river, which, in the small distance that it runs, is not fordable. Besides the several rivers which water this province, great torrents of water are seen rushing down from the most lofty rocks, forming a delightful spectacle; and thus the soil is constantly so moist that the maize rots in the ground.

"This province is very subject to great tempests of thunder and lightning, strong winds, and earthquakes; and in its mountains and forests are large trees of excellent kinds of wood, imparting a balmy fragrance to the surrounding air; and amongst these we must note in particular the liquid amber of a thick and rough wood, and various kinds of balsams *copales*, *xuchicopales almacigos*, and dragon plants, from which is extracted the gum, called dragon's blood. Here are canes of 100 feet long, and of such thickness and size as to have at each of their knots a cavity able to contain an *arroba* of water

These canes serve as timber in building. Moreover, here are Guaya-canæs, which are incorruptible, and another sort of wood, which, sawed asunder, represents on its plane pretty vary-coloured figures.

" This province is extremely fertile in all European fruits and flowers; these yielding their sweets to the labours of an infinite variety and innumerable swarms of bees; some without sting, and noted for making the clearest honey, others, like those of Spain, and others only as large as flies, others, again, whose honey causes giddiness; with this peculiarity, however, equally attached to all, that they make no honeycomb, but work under ground, forming their nests in the roots of trees. Their honey has an acid flavour, which is got rid of in a great measure by boiling; and it is not unfrequently kept and used after the same manner as the vinegar from oranges, for several domestic purposes. The woods of this province are thronged with animals and wild beasts; the largest of these is the *dantu*, as big as a calf, though somewhat short and thicker set in all its joints, which on the whole resemble those of the elephant; it has on its claws, three joints on the fore feet and four on the hind feet; the head is large, the forehead is sunk in, the eyes small, and the lower jaw hangs down five or six inches, and is raised when the animal is angry, thereby discovering its teeth and tusks, which are like those of a pig; its ears are peaked, the neck is sunk in the shoulders, and the tail short, with little bristles. The hide is six fingers thick, double at the loins, and, when dried, resists every kind of arms. This animal is ferocious and terrible when irritated, and with its tusks destroys every thing it meets in its course, not excepting trees of considerable strength. Here are likewise lions, tigers, bears of an enormous size, cats, and mountain goats, monkeys of various kinds, wild boars, porcupines, squirrels, and a variety of other animals. Also amongst the birds are eagles, small eagles, *buairones*, sea-crows, *alcatraces*, bitterns, storks, parrots, and others esteemed for their plumage and their song. This province is also filled with vipers and snakes of various kinds. The fountains and small rivers are numerous and run into the Gulf of Mexico."

MEXICO PROPER.

THE high mountains, called the Andes, which converge in Central America diverge north of the Isthmus of Tehuantepec, and approaching the shores of the Pacific on the west, and towards the Gulf of Mexico on the east, spread into the most extensive plateaux in the world. The great central plateau, or table-land, of Anahuac, extends north to about 24 deg. north latitude; and the plain, or great broad fertile valley, of Chihuahua, and even the great Prairies, may be considered as a further extension of the Mexican plateau. Along the Pacific, the low lands of Cinaloa, Acapulco, and Tehuantepec, are the widest districts between the sea and the mountains. In other places numerous low hills intervene, while frequently the mountains rise almost abruptly from the ocean.

On the eastern coast, the low districts, of the provinces of Vera Cruz and New Santander, extend northerly along the gulf to the Rio del Norte, the assumed boundary of Texas. This coast has no good harbours: Vera Cruz being the best; and, at the mouth of the Lake Panuco, Tampico the next port of any consequence. The mouth of the Rio Santillana, or Barra de Santander, also

admits small vessels; and to the south of the highlands, called the Sierra de St. Martin, which intervene between the Plain of Cuetlachtlan and the Isthmus of Tehuantepec, several small rivers flow into the gulf, the principal entrance of which, the Coalzacoalcos, was recently surveyed with a view of digging a canal across the Isthmus. The shallowest water over the bar is in that survey given as 6.2, nearly twenty feet; we doubt the fact.

The low coast of the Gulf of Mexico, north of 21 deg. north, is lined with sand-hills, and within which are large and small lagoons; the principal of which are the lagoons of Tamiagua, Tampico, Morales, and Madre. The breadth of the plains, or low country, from the gulf to the high or undulating lands, is stated to vary from about eight miles south of Vera Cruz, to from twenty, fifty, and sixty miles further north. On the western coast, north of about the twenty-fourth degree, the shores of the Gulf of California present a diversity of surface, in some few parts low, and, generally, undulating at no great height above the sea; the soil tolerably fertile, with little wood except in the river valleys. The climate is described as healthy: the rainy days during the year being on an average about ninety. Towards the northern parts, or the head of the Gulf of California, the lands are often low, and faced with sand-hills, but the soil behind, except in the undulated country, is not considered fertile.

The great table lands of Mexico, and those extending north to the American prairies, are the most important, both with respect to soil and climate; and, although Mexico has the disadvantages of few good harbours, along the sea or gulf coast, and a climate the most fatal to human life, along the latter, the soil and mines of the extensive regions of elevated plains, are adapted, under a secure, liberal, and permanent government, to maintain a population of more than 100,000,000 inhabitants, and to render Mexico a state of great power and wealth.

The ascent from the Plain of Vera Cruz to the table-land of Anahuac is rather abrupt, and the road from Vera Cruz, which was kept in good repair, is now, in many parts, described as in the most wretched and broken condition. It leads over a number of ascents, with intervening plains.

On these plains isolated mountains rise. Near the eastern boundary of the table-land, and bordering to the Plain of Cuetlachtlan, Pic de Orizaba, rises 17,373 feet above the sea, and the Nauhcampatepetl, or Coffre de Perote, to 13,415 feet in height. These mountains are, north to south, about thirty miles distant from each other. In about 19 deg. north longitude, and 98 deg. 10 min. west longitude, the Popocatepetl rises to 17,884 feet, and is supposed to be the highest mountain in North America; north of which the Iztaccihuatl, is 15,704 feet high. Further west is the Nevado de Toluca, 15,271 feet high. The Pic de Tancitaro, near the Pacific, 10,509 feet high; not far from which the volcano of Colima rises 9193 feet above the sea. Four of these mountains only rise above the region of perpetual frost, or, in Mexico, about 15,000 feet above the sea. Nearly

all these mountains are evidently of volcanic origin; three are said to be in a state of activity—the Orizaba, the Popocatepetl, and the volcano of Colima. In 1759, a volcano burst forth on one of the lower plains near the Pacific, which was called the volcano of Jorullo, it rose about 1700 feet above the plain. We are not certain if it be still in activity.

The highest elevation of the plateaux of Anahuac adjoins or extends between the foregoing named mountains to the series of isolated peaks above-mentioned. From the western base of the Orizaba and Nauhcampatepetl, the table-land of Tlascala extends in breadth about seventy miles, and in length about 100 miles. Its plateaux rises about 7200 feet above the sea. On the west of this table-land is the Plain of Mexico, or Tenochtitlan, which rises still higher, or about 7500 feet above the sea. It is about fifty miles long, and about twenty-five miles broad. Beyond the latter plain lies the most elevated of the Mexican plateaux, the Plain of Toluca, the average height of which is nearly 9000 feet. The table-land of Michoacan, west of Toluca, varies in height from 6000 feet to 6500 feet. It is interspersed with high hills and detached ridges. It is about ninety-six miles broad, and 100 miles in length. A lower country lies between Michoacan, and the Pacific. This lower district is occasionally hilly and undulating.

That section of table-land which extends south-easterly from the Plains of Tlascala and Mexico, to the Isthmus of Tehuantepec, is called the plateaux of Mixtecapan; the average height is stated to be about 5000 feet above the sea. It is traversed towards the Pacific, however, by broad valleys. The town of Oaxaca, situated in the largest valley, is about 4800 feet above the sea; the adjoining high ground, on which are the ruins of the palace of Mitla, is 5300 feet high. Along the sea-coast to the north-west, and sloping down to Acapulco, the table-land is traversed by deep valleys, extending in an east and west direction. The road from Mexico to Acapulco passes across four of them. They decline towards the sea.

It is rather presumptuous to speak positively of a country so ill explored as Mexico, but all authorities agree in stating that no continuous range of mountains traverses the southern section of table-land, except the hilly ridges which separate the plains from each other. These rise 500 feet or 600 feet some peaks above 1000 feet, above the plains. In about 20 deg. north latitude, the heights which bound the limit of the plain west of the city of Mexico, rise in a continuous range, called the Sierra Madre. This range follows in a west-north-west direction near the town of St. Felipe, and thence north-westerly to the south of the town of Durango. This northern Andean chain extends in greater breadth north-north-westerly, along the eastern boundary of the Plain of Chihuahua, separating that plain from the low region of Cinaloa, and the mountainous district of Sonara. Near the Presidio de S. Bernardino, about 32 deg. north, rises the mountain de las Esquelas. The elevation of this great range is

not well ascertained, but it rises to a considerable height east of the town of Durango, where the mines, in valleys, are from 8000 to 9000 feet above the level of the ocean.

The region between 20 deg. and 24 deg. north latitude comprises the elevated plains (about 6500 feet above the sea) of Querétaro, S. Luis de Potosi, and Xalisco. The two first border on the Sierra Madre: Querétaro extending along the south, S. Luis de Potosi to the north. The fertile district of Baxio in Querétaro extends along the banks of the Rio de Santiago. East of the plateau of S. Luis de Potosi, and above the low lands which extend back from the Gulf of Mexico, a range of mountains, the Catorce, rises about 2000 feet above the plain, and to about 8000 feet above the sea.

The plain of Querétaro extends westward to about 101 deg. 40 min. west longitude, where it is traversed by a hilly region, between which the country descends, and the table-land of Xalisco, which extends westward to the shores of the Pacific, is considered not higher than from 3000 feet to 4000 feet above the sea, and the surface is diversified by hills, depressions, and valleys.

The great plateau of Anahuac is of varied fertility. In some places the surface exhibits bare rocks, in others tough moving clay. The vegetable mould is usually dry. The aridity of the soil is accounted for by the great elevation of the table-land, the rapid evaporation, and the volcanic structure of the rocks of the mountains. The plains are, in general, destitute of wood, which occurs but seldom, except in the valleys. There are numerous lakes, usually shallow, and their water brackish; running streams and springs are rare.

RIVERS OF ANAHUAC.—From the dryness of the atmosphere and the nature of the soil, Anahuac has few rivers. The streams which flow from it are only navigable for a short distance from the sea; they are rapid and shallow. The Rio Santiago, called also Rio Grande, and by the aborigines Tolotlan, rises in the small lake of Lerma, to the east of the volcano of Toluca, and winds for a distance of about 405 miles to the sea. It traverses the plains of Toluca and Querétaro, in a north-west direction. It is generally deep and not rapid, but it does not appear that it is navigated in these parts. It gradually turns to the west, and flows by a rapid course to the Plain of Xalisco, and through the large lake of Chapala. Rushing from that lake, it descends at the Puente del Rio Grande, in a distance of about one league over fifty to sixty falls of various heights, and flows with impetuous rapidity to near its estuary, in which rise several islands. On its southern bank is the port of San Blas.

The Rio Panuco rises in the plateau of Tenochtitlan; for the water conveyed by the canal of Huehuetoca from the lake of Zumpango forms its most extreme source. It is for a great distance rapid, and becomes only navigable for boats at Tanquichi, about 170 miles from its mouth. Ten miles lower down it is joined by the Rio Tamoin, which flows from the west; above

which its name is the Moctezuma, and between which it is called the Panuco. It passes the town of Panuco eighty miles from its mouth. Vessels drawing not more than twelve feet water ascend to this town. It falls into the Gulf of Mexico, at the port of Tampico, about 400 miles from its source.

The lakes of Mexico are numerous, and occasionally occupy a considerable portion of the plains. One-tenth of the plain of Tenochtitlan is covered by the lakes of Zumpango, Christoval, Tezcoco, and Chalco. The largest lake is that of Chapala, on the plain of Jalisco, and is traversed by the Rio Santiago. It is about ninety miles long, and from twelve to eighteen miles wide.

That portion of the Mexican isthmus which lies between 24 deg. and 32 deg. north lat., contains four different regions: the western coast, the Sierra Madre, the elevated plain of Chihuahua, and the eastern Lowlands.

The western coast of Mexico north of latitude 20 deg. north, occupies the shores of the Gulf of California. The district south of the Rio Yagui, in 28 deg. north latitude, is a level with undulations. The soil, consisting chiefly of sandy clay, with little wood. The beds of the rivers are many feet below the surface of the plain, and are bordered with rich alluvial soils. The climate is temperate, although the rainy season lasts, generally, from the end of June to the end of September. The country between the Rio Yagui and 32 deg. north latitude comprises ranges of high hills, often approaching the sea, and intersected by deep, narrow ravines. In some places this hilly country extends nearly to the shore. In other parts these extensive plains between the shore and the hill country, towards the north head of the Gulf of California, are low, and covered with brushwood, and separated from the sea by sand-hills, about twenty feet in height, and about fifty yards from the shore. These plains are arid, and with few or no inhabitants. Several streams rising in the mountains flow down to the Gulf: the soil is either sandy, or a hard clay.

The Yagui, or Rio de Sonora, rises to the north of the parallel of 32 deg. in the Sierra Madre. Its whole course is, probably, not less than 400 miles. It does not appear that it is navigated. Its waters are used for irrigating the adjoining lands where cultivated.

The plateau of Chihuahua, extending along the eastern base of the Sierra Madre, is as a continuation of the table-land of S. Luis de Potosi. It extends from south-south-east to north-north-west, about 600 miles, and is terminated on the north by a line drawn from the Presidio de S. Bernardino to the Paso del Norte, near the parallel of 32 deg. It varies from 150 to 200 miles in width. Its southern extremity, contiguous to the table-land of S. Luis de Potosi, is considered to be nearly 6000 feet above the sea. It declines towards the north. This region has been compared to the steppes of Asia. The surface of this table-land is generally level. The soil is impregnated with nitre, muriate of soda, and carbonate of potash; is entirely destitute of wood, except along the

streams, which are bordered with poplars and some other trees. Its pastures feed sheep during the winter months. In dry weather the verdure disappears, except along the rivers. In some districts, distant from the rivers, there are dry salt-lakes, from which salt is collected. These salt-lakes render the country excessively unhealthy; for whenever there is any wind, the air is filled with saline particles and dust, which oppress respiration and cause numerous diseases. The rivers, along which alone the cultivated tracts occur, flow generally in ravines several feet below the surface of the plain, and terminate (with the exception of the Rio Conchos) in lakes without outlets. The principal rivers are the Rio de las Casas Grandes, the Conchos, and the Rio Grande.

The Rio de las Casas Grandes, which rises in the Sierra Madre, runs northerly, about 100 miles, into the Lake of Guzman. The Rio Conchos or the Sierra Madre, whence the river flows due north, being increased in its course by numerous tributaries from the west, but not by a single one afterwards for about 300 miles, into the Rio Grande del Norte, nearly opposite the Presidio del Norte. The valley of this river is the most populous and best cultivated part of the plain of Chihuahua. The Rio Grande of the plain (a different river from the Rio Grande del Norte), rises in the Sierra Madre, west of the town of Zacatecas, and runs at first north-east, as far as the place where it descends into the plain, through which it winds in a north direction, terminating in the lake of Parrus, about 27 deg. north lat. Its valley is tolerably well cultivated, and is said to be embellished with orchards.

The north-eastern part of the plain of Chihuahua is occupied by a mountain region, at least towards its northern extremity, called the Bolson de Mapimi. Very little is known of this region. It extends northerly to the banks of the Rio del Norte. The mountains of Salinas and Pesquoria attain an elevation of more than 10,000 feet above the sea, but from 27 deg. to 28 deg. north latitude, the mountain range scarcely rises above the level of the plain of Chihuahua.

A low country, which may be considered an extension of the low plain of New Santander, intervenes between the Bolson de Mapimi and the Gulf of Mexico. Its width, as far as we know, varies between sixty and 120 miles. It is covered with wood only in part, and comprises extensive prairies covered with grass. Along the coast the land is low, and the soil either sandy or swampy, and skirted in many parts by sand-hills. Further back the soil is fertile; but the want of good harbours has, with other causes, retarded the settlement and cultivation of this region.

A vast plain extends from the head of the Gulf of California eastward, and on both sides of the Rio Gila, over the continent to the banks of the Rio del Norte, north of the Paso del Norte, between 32 deg. and 34 deg. north latitude. This plateau is very little known, but it has been described as a sandy, sterile, and nearly uninhabitable country.

CLIMATE.—No country has greater extremes and varieties of climate than Mexico. Great difference of temperature would naturally be found in regions extending from the latitudes of 16 deg. and 42 degrees 30 min. north, even if the whole were of about an equal altitude above the sea ; but the great inequality of surface, from districts scarcely more than a few feet above the sea, to the table-lands, which rise to 8000, and even 9000 feet above that level, and to the mountain summits, accounts sufficiently for the extremes of temperature and variety of climate.

The rains, which fall abundantly south of the tropic, occur from about the middle of the month of June, to the middle or end of September; these rains are greater on the low sea-coast than on the plateau of Anahuac.

The tropical rains extend north of the tropic, but are less abundant, and fall later. On the plain of Chihuahua, and the mountain-region of Sonora the rainy season begins early in September, and lasts to the end of October, and sometimes to the middle of November. About 30 deg. north latitude the rainy season continues a month or six weeks, and the quantity that falls is less than more southerly. In the arid plain of the Rio Gila, about 32 deg. north, little or no rain falls.

With respect to climate, Mexico is divided into *tierras calientes*, hot countries ; *tierras templadas*, temperate countries ; and *tierras frias*, or cold countries. The first term is applied to the low coasts, the second to the districts from 4500 to 6000 feet above the sea, and the last to those which exceed in elevation 6000 feet above the sea. The *tierras frias* comprehend more than two-thirds of the surface south of the tropic ; the *tierras calientes*, perhaps one-sixth ; and the *tierras templadas*, still less.

At Vera Cruz, the mean annual temperature is about 77 deg. ; the greatest heat prevails during, and shortly before, the rains ; the thermometer usually rising to 81 deg. and 82 deg. ; in December and January it falls to about 70 deg. to 73 deg., which it seldom exceeds during those months. During the prevalence of the northerly winds, which often blow strongly from October to March, the thermometer sometimes sinks to 60 deg.

On the *tierras frias* the temperature of heat and cold varies less than on the sea coast. The climate is described as that of a perpetual spring; the thermometer varying only from 10 deg. or 12 deg. The mean annual temperature in the city of Mexico being about 62 deg. The greatest heat occurs during the weeks preceding the rains, in April and May; the thermometer then rises to from 64 deg. or 68 deg. The evaporation during the rainy season diminishes the heat from 2 deg. or 5 deg. The mean temperature of the winter is about 56 deg. ; and sometimes the thermometer, occasionally, but not often, descends to the freezing point, and a small quantity of snow falls. The climate of all the table and uplands is salubrious. The climate of the sea coast within the tropics may be considered generally unhealthy.

The climate of Vera Cruz and Tampico, the chief and the only ports worthy of any notice within the Gulf of Mexico, and of Acapulco on the Pacific, is remarkably fatal to human life. Alcedo, in describing the climate, soil, and productions of the province of Vera Cruz, observes:—

"It is situated under the burning sun of the tropics, and extends along the Mexican gulf, from the Rio Baraderas (or De los Lagartos) to the great river of Panuco, which rises in the metalliferous mountains of San Luis Potosi.

"There are few regions in the new continent where the traveller is more struck with the assemblage of the most opposite climates. All the west part of the intendancy of Vera Cruz forms the declivity of the *cordilleras* of Anahuac. In the space of a day the inhabitants descend from the regions of eternal snow to the plains in the vicinity of the sea, where the most suffocating heat prevails. The admirable order with which different tribes of vegetables rise above one another by strata, as it were, is nowhere more perceptible than in ascending from the port of Vera Cruz to the table-land of Perote. We see there the physiognomy of the country, the aspect of the sky, the form of plants, the figures of animals, the manners of the inhabitants, and the kind of cultivation followed by them, assuming a different appearance in every step of our progress.

"As we ascend, nature appears gradually less animated, the beauty of the vegetable forms diminishes, the shoots become less succulent, and the flowers less coloured. The aspect of the Mexican oak quiets the alarms of travellers newly landed at Vera Cruz. Its presence demonstrates to him that he has left behind the zone so justly dreaded by the people of the north, under which the yellow fever exercises its ravages in New Spain. This inferior limit of oaks warns the colonist who inhabits the central table-land how far he may descend towards the coast, without dread of the mortal disease of the *vomito*. Forests of liquid-amber, near Xalapa, announce by the freshness of their verdure, that this is the elevation at which the clouds suspended over the ocean come in contact with the basaltic summits of the *cordillera*. A little higher, near La Banderilla, the nutritive fruit of the banana-tree comes no longer to maturity. In this foggy and cold region, therefore, want spurs on the Indian to labour, and excites his industry. At the height of San Miguel, pines begin to mingle with the oaks, which are found by the traveller as high as the elevated plains of Perote, where he beholds the delightful aspect of fields sown with wheat. Eight hundred metres higher the coldness of the climate will no longer admit of the vegetation of oaks; and pines alone there cover the rocks, whose summits enter the zone of eternal snow. Thus, in a few hours, the naturalist in this miraculous country ascends the whole scale of vegetation from the heliconia and the banana-plant, whose glossy leaves swell out into extraordinary dimensions, to the stunted parenchyma of the resinous trees!

"The province of Vera Cruz is enriched by nature with the most precious productions. At the foot of the *cordillera*, in the ever-green forests of Papantla, Nautla, and S. Andre Tuxtla, grows the epidendrum vanilla, of which the odoriferous fruit is employed for perfuming chocolate. The beautiful convolvulus jalapæ grows near the Indian villages of Colipa and Misantla, of which the tuberose root furnishes the jalap, one of the most energetic and beneficent purgatives. The myrtle (*myrtus pimenta*), of which the grain forms an agreeable spice, well known in trade by the name of *pimenta de tabasco*, is produced in the forests which extend towards the river of Baraderas, in the east part of the intendancy of Vera Cruz. The cocoa of Acayucan would be in request if the natives were to apply themselves more assiduously to the cultivation of cocoa-trees. On the east and south declivities of the Pic d'Orizaba, in the valleys which extend towards the small town of Cordova, tobacco of an excellent quality is cultivated, which yields an annual revenue to the crown of more than 18,000,000 of francs (750,060⁷ sterling). The similax, of which the root is the true sasaparilla, grows in the humid and umbrageous ravines of the *cordillera*. The cotton of the coast of Vera Cruz is celebrated for its fineness and whiteness. The sugar-cane yields nearly as much sugar as in the island of Cuba, and more than in the plantations of St. Domingo.

" This intendency alone would keep alive the commerce of the port of Vera Cruz, if the number of colonists was greater, and if their laziness, the effect of the bounty of nature, and the facility of providing without effort for the most urgent wants of life, did not impede the progress of industry. The old population of Mexico was concentrated in the interior of the country on the table-land. The Mexican tribes who, according to Humboldt, were supposed to have come from the north countries, gave the preference in their migrations to the ridges of the *cordilleras*, because they found on them a climate analogous to that of their native country. No doubt, on the first arrival of the Spaniards on the coast of Chalchihuapan (Vera Cruz), all the country from the river of Papaloapan (Alvarado to Huaxtecapan), was better inhabited and better cultivated than it now is. However, the conquerors found, as they ascended the table-land, the villages closer together, the fields divided into smaller portions, and the people more polished. The Spaniards, who imagined they founded new cities when they gave European names to Aztec cities, followed the traces of the indigenous civilisation. They had very powerful motives for inhabiting the table-land of Anahuac. They dreaded the heat and the diseases which prevail in the plains. The search after the precious metals, the cultivation of European grain and fruit, the analogy of the climate with that of the Castilles, and many other causes of a similar description, all concurred to fix them on the ridge of the *cordillera*. So long as the *encomenderos*, abusing the rights which they derived from the laws, treated the Indians as slaves, a great number of them were transported from the regions of the coast to the table-land in the interior, either to work in the mines, or merely that they might be near the habitation of their masters. For two centuries the trade in indigo, sugar, and cotton, was next to nothing. The whites could by no means be induced to settle in the plains, where the true Indian climate prevails; and one would say that the Europeans came under the tropics merely to inhabit the temperate zone.

" Since the great increase in the consumption of sugar, and since the new continent has come to furnish many of the productions formerly procured only in Asia and Africa, the plains (*tierras calientes*) afford, no doubt, a greater inducement to colonisation. Hence, sugar and cotton plantations have been multiplying in the province of Vera Cruz, especially since the fatal events at St. Domingo, which have given a great stimulus to industry in the Spanish colonies. However, the progress hitherto has not been very remarkable on the Mexican coast. It will require centuries to re-people these deserts. Spaces of many square leagues are now only occupied by two or three huts (*hato de ganado*), around which stray herds of half-wild cattle. A small number of powerful families, who live on the central table-land, possess the greatest part of the shores of the intendancies of Vera Cruz and San Luis Potosi. No agrarian law forces these rich proprietors to sell their *mayorazgos*, if they persist in refusing to bring the immense territories which belong to them under cultivation. They harass their farmers, and turn them away at pleasure.

" To this evil, which is common to the coast of the Gulf of Mexico, with Andalusia and a great part of Spain, other causes of depopulation must be added. The militia of the intendency of Vera Cruz is much too numerous for a country so thinly inhabited. This service oppresses the labourer. He flees from the coast to avoid being compelled to enter into the corps of the *lanceros* and the *milicianos*. The levies for sailors to the royal navy are also too frequently repeated, and executed in too arbitrary a manner. Hitherto the government has neglected every means for increasing the population of this desert coast. From this state of things results a great want of hands, and a scarcity of provisions, singular enough in a country of such great fertility. The wages of an ordinary workman at Vera Cruz are from five to six francs (4s. 2d. to 5s.) per day. A master mason, and every man who follows a particular trade, gains from fifteen and twenty francs per day, that is to say, three times as much as on the central table-land."

Such was the description given of the country along and back from the Gulf, immediately before Mexico declared its independence of Spain.—(See Port of Vera Cruz hereafter.)

In describing Mexico according to accounts written since 1840, we are confined altogether to the works of American travellers.

Mr. Mayer, on leaving Vera Cruz, in 1841, observes:—

"It was entirely too warm, even in this middle of November, to stir out of the house with satisfaction. We, therefore, dressed ourselves in summer apparel, and took an excellent dinner very quietly, resolved not to expose our persons unnecessarily, as we understood there had been recent cases of vomito. A number of gentlemen called to see us, and I found the governor and other officers exceedingly anxious to afford us all the protection in their power on the road to Mexico. They say that the country has been lately scoured by troops of dragoons, but that it is still infested with robbers; and, although we are to have a military escort, our friends appear to intimate that Colt's revolving pistols, double-barrelled guns, and a stock of resolution and coolness, will be our best safeguards. We have, therefore, taken the stage which will depart four days hence; and as we are amply prepared with arms and ammunition, and a number of determined passengers, I trust we shall reach the capital without having our noses stamped in the ground after the most approved fashion of the Ladrone.

"At sunset, a countryman was so good as to call for us to walk with him to the *Alameda*. We sallied from the south gate, and took our way into a desolate and melancholy country. On every side were marks of solitude and misery. The ruins of houses and churches, filled with weeds and creepers; neglected fields, overgrown with aloes, and made still more sad by the long pendulous branches of the solitary palm; and, over all lay the dark shadows of evening, as the last rays of the sun fell aslant on the stagnant pools. A sergeant was drilling a few recruits to the tap of the drum. The music seemed to be a dead march, and the step of the soldiers was slow and solemn. Nothing could be more dreary—more heart-sickening. We loitered on, like the rest of folks, but there was no liveliness—no spirit. The people were not cheerful and joyous as when abroad *with us* for an evening's promenade, but strolled along in silent pairs, as if oppressed by the sadness of the melancholy wastes on the one side, and the cold, dreary, illimitable sea on the other.

"The appropriate termination of this walk through the ruined *Alameda*, was the burying-ground. As we reached it, a funeral had just entered, and in the chapel they were saying some annual service for the dead! It may be wrong to indulge in such emotions, but here there really seems to be an utter *hopelessness in death*. We love to think, that when it falls to our lot to share the common fate of humanity, we shall, at least, repose near our kindred and friends, in some beautiful spot, where those we have loved shall moulder beside us, until the dust we cherished in life shall be as blent as were the spirits that animated it. We love to think that our graves will not be solitary or unvisited. But, on this dismal shore, where the Shadow of Death for ever hangs over the prospect, the grave is not a resting-place, even for tired spirits, and the soul seems to perish as well as the body!

"I came home with a capital 'fit of the blues.' What with the heat and exercise, our bodies were rather tired; but what with the vomito, the sad walk, and a little excitability, I do not remember to have slept a wink. In addition to these annoyances, there was a continual hubbub in the square under our windows all night long. First of all, the guard was to be set, and that produced drumming, fifing, braying of trumpets, and bustle of troops; next, my bed was too short for me; then, just as I was coaxing myself into a doze, I discovered that the servant had neglected to put down the net, and consequently, came the onset of a colony of mosquitos, ravenous for the fresh blood of a foreigner; next, the clock on the opposite tower struck *every quarter*, and that was backed, by the watchman under the *portales*, who prefaced his song with an 'Ave Maria Purissima' that would have waked the dead. And thus, from hour to hour, I tossed and tumbled, while the clock struck, the watchmen howled, and the mosquitos sucked.

"One of my fellow-travellers who was anxious to avoid the risk of waiting in Vera Cruz for the diligence, informed me about ten o'clock, that he had made arrangements for a *litera* to carry him to Xalapa, there to await the stage and rejoin our party. He was so good as to offer me a part of his couch, which I eagerly accepted, and immediately set

to work packing my extra baggage for the Arrieros, as the diligence, and the muleteers who accompany *literas*, will carry but a limited burden. At four the litera arrived, but the muleteers would allow but one passenger? There was nothing but submission. Pancho had his bundles strapped on, stepped into his vehicle, or rather stretched out on its bed, lighted his cigar, tied on a Guayaquil *sombrero*, and waved us farewell.

"During the last two days of our stay at Vera Cruz, it blew a norther. The wind was high, and made it impossible for ships to enter the port. We spent the last afternoon at the water-gate of the city, watching the waves as they spent their fury on the Mole, and the ships, anchored under the lee of the castle, tugging at their cables like impatient coursers struggling to get loose.

"After supper we made our final preparations for departure. Trunks were strapped on the diligence, old and warmer clothing put on, and, at midnight, nine of us got into the American coach for our journey to the capital.

"The stories of numerous robberies, and the general insecurity of the road, had been dinned into our ears ever since we arrived. Scarcely a diligence came in that did not bring accounts of the levying of contributions.

"It was very dark when we issued from the gates of the city, where our passports were demanded. Accustomed, of late years, to the unmolested travelling of our Union, I had put mine at the bottom of the trunk, and forgot all about the necessity of having it in my pocket. The drowsy guard, however, took my word for the fact that I had one, and permitted us to pass on.

"A warm, drizzling rain was pattering down, driven in by the norther, which was still raging and dashing the sea in long surges on the sandy beach along which our road lay for several miles. We could see nothing; the way soon became almost impassable through the deep sand, though our heavy coach was drawn by eight horses; and proposing that the curtains should be let down, at least on my side, I was soon in a profound sleep, nor did I awake until near sunrise, as we were passing the estate of Santa Anna, at Manga de Clavo. His *hacienda* was in the distance, to the right of the road, and appeared to be a long, low edifice, buried among forests, but without those signs of improvement and cultivation which make the property of our great landlords so picturesque. He owns an immense body of land in this neighbourhood, lying for *leagues* along the road, but all seemed as barren and unattractive as the wildernesses of our far west.

"During the night, an escort of three troopers had joined us at Boccherone. At daylight I caught sight of them, for the first time, in their long yellow cloaks, trotting along behind us on their small, but tough and trusty horses. They were three as poor-looking wretches as I ever saw: one of them appeared to be just out of a fit of fever; the other a little the worse for an extra cup of *aguardiente*; and the third, as though he had just recovered from a month's chattering of the ague.

"The road thus far had been tolerably good, although much cut up by the recent passage of baggage-waggons and trains of artillery. About seven o'clock we halted at the village of Manantial for breakfast. It is the usual stopping-place for the diligence, and we were of course immediately supplied with chocolate and biscuit.

"The houses in this part of Mexico are mostly built of split bamboos, set upright in the ground, with a steep roof, thatched with palm-leaves, and prepared, of course, to admit freely the sun, wind, and rain, which, during the season, is sufficiently abundant. Upon the whole, they are very respectable and picturesque *chicken-coops*.

"Here our guard quitted us. It seems, notwithstanding the written orders and promise I had from the commandant at Vera Cruz for an escort, that these fellows had received no directions to accompany us, and had only ridden thus far, because they thought the new Minister of Finance, Señor Trigueros, was in the stage. But I can hardly think they were a loss.

"We were soon called to coach, and mounting our vehicle with better spirits for the refreshment and morning air, we shortly entered a rolling country, with an occasional ruinous hamlet and plantation. Although the scenery was in spots exceedingly romantic, interspersed with upland and valley, and covered with a profusion of tropical trees and flowers, there was over the whole that air of abandonment which could not fail to strike

one painfully. In a new country, as a traveller passes, by a solitary bridle-path, over the plains and hills, hidden by the primeval forests fresh as they came from nature's hand, there is matter for agreeable reflection, in fancying what the virgin soil will produce in a few years when visited by industry and taste. But here, nature, instead of being pruned of her luxuriance with judicious care, has been literally sapped and exhausted, and made old even in her youth, until she again begins to renew her empire among *ruins*. It is true, that traces of old cultivation are yet to be found, and also the remains of a former dense population. The sides of the hills, in many places, as in Chili and Peru, are cut into terraces; but over those plains and terraces is spread a wild growth of mimosas, cactus, and acacias, while a thousand flowering parasite plants trail their gaudy blossoms among the aloes and shrubbery which fill up the rents of time and neglect in the dilapidated buildings. It is the picture of a beauty, prematurely old, tricked out in the fanciful finery of youth!

"We wound along among these silent hills until about ten o'clock, when a rapid descent brought us to the National Bridge, built by the old Spanish government, and enjoying then the sounding title of *Puente del Rey*. Changed in name, it has not, however, changed in massive strength, or beauty of surrounding scenery. Indeed, the neglect of cultivation, has permitted nature to regain her power; and the features of the scenery are therefore more like those of some of the romantic ravines of Italy, where the remains of architecture and the luxuriant products of the soil are blent in wild and romantic beauty.

"The Puente Nacional spans the river Antigua, which passes over a rocky bed in a deep dell of high and perpendicular rocks. The adjacent heights of this mountain pass have been strongly fortified during the wars; among their fastnesses and defiles the revolutionary generals lay concealed in Iturbide's time, and finally descended from them to conclude the fight in favour of independence.

"At Puente, there is a village containing the usual number of comfortable cane huts, before which the neighbouring Indians had spread out for sale their fruits and wares; while the Mexicans (as it was Sunday) were amusing themselves by gambling at *monte* for *clacos*. At the inn a breakfast of eggs and frijoles was prepared for us. The eggs, the beans, the bread, and a bottle of tolerable claret went down famously, with the seasoning of our mountain appetites; but I cannot say as much for the stew of mutton and fish fresh from the river. What with onions, and lard, and garlic, and chilé peppers, I never tasted such a mess.

"Our route westward to Plan del Rio was through a mountainous country of short and gradual ascents, in most of its characteristics resembling the one we had passed over during our morning ride. At length, a steep descent over a road as smooth as a bowling-green brought us to the village of Plan. The guard trotted after us leisurely; the day had become cloudy and the scenery dreary, and the fear of robbers among these solitary wildernesses again came over us. We felt, indeed, more anxiety than since our departure.

"The host at Plan del Rio received us warmly, though his house was as cold and uninviting as the day. He speedily produced a smoking dinner of fowls and rice, to which I found myself able to do but little justice. But the dinner had been served—we had tasted it—a bottle of claret had been drunk, and though our appetites had been frugal, the nine of us were obliged to pay two dollars each for the service! The two fowls which made the stew, cost, at the most, a *real* each; the rice as much, the salad grew for the planting, and the claret stood our host about seventy-five cents the bottle; so, for what, with service and cooking and original cost, taxed our Padrone not more than three dollars at the extreme, he had the modest assurance to charge our coach-load *eighteen!*

"What with sour wine, sour spirits, and imposition, I doubt much if there was ever an angrier coach-load on any highway. We were effectually ill-tempered, and we looked to our primings with the full disposition to defend ourselves nobly. It would have fared ill with any one who had ventured to attack us during our first hour's ride. In addition to this, our road, as soon as it left the river, ascended rapidly and passed over a track which would in any other country be called the bed of a mountain stream, so rough and jagged was its surface. Although it is the duty of the government to keep this highway

in order, yet as the chief travelling is on horseback, and the principal part of merchandise is transported on mules, no one cares how these animals get along. Sure-footed and slow, they toil patiently among the rents and rocks, and their drivers are too well used to the inconveniences to complain. Besides this, in case of insurrections, it is better for the roads to be in bad condition, as it prevents easy communication between the several parts of Mexico, and the disjointed stones serve to form, as they have often done, breastworks and forts for the insurgents.

"But over this mass of ruin we were obliged to jolt in the ascent of the mountain, during the whole afternoon, meeting in the course of it fifty waggons laden with heavy machinery for factories near Mexico.

"I must not forget to mention one redeeming spot in the gloomy evening. On looking back over the province of Vera Cruz, as we were near the summit of the mountain, I caught a glimpse of the plains and hills over which we had been all day toiling. The view was uninterrupted. Before us lay valley upon valley, in one long graceful descending sweep of woodland and meadow, until they dwindled away in the sands to the east, and the whole was blent, near the horizon, with the blue waves of the Gulf of Mexico. Just then the sun broke out from the region of clouds which we were rapidly approaching in our ascent, and gilding, for a moment, the whole lowland prospect, I could almost fancy I saw the sparkle of the wave crests as they broke on the distant and barren shore.

"At the village on the mountain we could get no guard. This is said to be a very dangerous pass; but the commanding officer told us he had been stationed here for two weeks, during which he had scoured the mountains in every direction, and believed his district to be free from robbers. Cigars would not avail us this time! His men were tired and he could give no escort.

"Night soon fell dark and coldly around us. In these elevated regions the air is cold and nipping; but we dared not put down our coach curtains for fear of an attack. We therefore donned our cloaks and over-coats, and laid our guns and pistols on the window-frames. John, the old gray hero, was on the look-out, with his blunderbuss, from the box, and the driver promised to have an eye to windward.

"Thus we jolted on again, at times almost stalled, and, in sudden smooth descents, swinging along with a rapidity in the dark and moonless night, that seemed to threaten our destruction among the rocks. Six, seven, eight, and half-past eight o'clock passed, and no robbers appeared, though there had been several false alarms. The road became worse and worse, the coach heaving over the stones like a ship in a head sea, and the driver being obliged to descend from his seat and *feel* for the track. We saw lights passing over the heath in many places, and it was *surmised* they might be the signal lights of robbers. After due consultation, it was determined that *they were!* As we approached them they proved to be fire-flies! We felt for our percussion-caps and found them all right, and, at that moment, the coach was brought to a dead halt in the blackest looking ravine imaginable.

"At half-past nine we rolled into the court-yard of an excellent inn at Xalapa, where a good meal served both for dinner and supper.

"**XALAPA AND PEROTE.**—When the Neapolitans speak to you of their beautiful city, they call it, 'a piece of heaven fallen to earth';* and tell you to 'see Naples and die!'

"It is only because so few travellers extend their journey to Xalapa and describe its scenery, that it has not received something of the same extravagant eulogium.

"The town has about ten thousand inhabitants, and is, in every respect, the reverse of Vera Cruz; high, healthy, and built on almost precipitous streets, winding, with curious crookedness, up the steep hill-sides. This perching and bird-like architecture makes a city picturesque—although its highways may be toilsome to those who are not always in search of the romantic.

"The houses of Xalapa are not so lofty as those of Vera Cruz, and their exteriors are much plainer; but the inside of the dwellings, I am told, is furnished and decorated in

* "Un pezzo de cielo caduto in terra."

the most tasteful manner. The hotel in which we lodged was an evidence of this; its walls and ceilings were papered and painted in a style of splendour rarely seen out of Paris.

"The vapour rising from the sea, driven inland by the northern winds, here first strikes the mountains; and, lodging in rain and mist and dew among the cliffs, preserves that perennial green which covers this teeming region with constant freshness and luxuriance. Xalapa is consequently a 'damp town,' yet it enjoys a great reputation for its salubrity. It is now the best season of the year; but scarcely a day passes without rain, while the thermometer ranges from 52 deg. to 76 deg., according to the state of the clouds and winds. As soon as the mountains have discharged their vapours, the sun blazes forth with a fierceness and intensity, increased by the reflection from every hill, into the town; as to a focus.

"Yet I saw enough to justify all the praises even of extravagant admirers. Its society is said to be excellent, and its women are the theme of the poets throughout the republic.

"After despatching our breakfast, for which we paid (together with our night's lodging and dinner) the sum of *four dollars*, we mounted the diligence at ten o'clock, prepared as usual for the robbers, and set out for Perote.

"In driving from the town we passed through the public square; and in the market which is held there I first saw in perfection the profuse quantity of tropical fruits (and especially the *chirimoya*, and *granadilla*.) for which Xalapa is renowned. The market is supplied by the numerous small cultivators from the neighbourhood, the females of whom bear a resemblance to our Northern Indians, which is perhaps even stranger and more remarkable than that of the men.

"*Maize*, the great staff of life for biped and quadruped in our western world, is chiefly used in the *tortilla* cakes, of which we hear so much from Mexican travellers.

"The sellers of these tough, buckskin victuals, sit in lines along the curb of the side-walks with their fresh cakes in baskets covered with clean napkins to preserve their warmth. There they wait patiently for purchasers; and as *tortillas*, with a little *chilé*, or red pepper boiled in lard, are indispensable at least twice a day for the mass of the people, they are quite sure of a ready sale.

"With the great mass of Mexicans there is no such thing as domestic cookery. The labourer sallies forth with his *clacos* in his pocket, and two or three of them will purchase his cakes from an Indian woman. A few steps further on, another Indian woman has a pan boiling over a portable furnace, and containing the required beans or *chilé*. The hungry man squats down beside the seller—makes a breakfast or dinner-table of his knees—holds out his *tortilla* spread flat on his hand, for a ladle of *chilé* and a lump of meat—then doubles up the edges of the cake sandwich fashion, and so on until his appetite is satisfied. He who is better off in the world, or indulges occasionally in a little extravagance, owns a *clay platter*. Into this he causes his *frijoles*, or *chilé* and meat, to be thrown, and making a spoon of his *tortilla*, gradually gets possession of his food, and terminates his repast by eating the spoon itself! There is great economy in this mode of housekeeping which recommends itself, especially, to the tastes of old bachelors. There are no dishes to be washed—no silver to be cleaned, or cared for. Your Indian flings down his *clacos*—stretches himself to his full height—gives a valedictory grunt of satisfaction over a filled stomach—and is off to his labour.

"Thus wonderful is the frugality not only of the humbler classes, but, indeed, of almost all who have come under my observation in Spanish America. Whether this frugality is a virtue, or the result of indolence, it is not necessary for me to stop to inquire. The reader may draw his own conclusions. But all classes are content with less physical comfort than the inhabitants of other countries. Their diet is poor, their lodging miserable, their clothing coarse, inelegant and inadequate for the climate; and yet, when the energies and intelligence of the very people who seem so supine are called into action, few men manifest those qualities in a higher degree. Let me, as an illustration, notice the arrieros, or common carriers of the country, by whom almost all the transportation of the most valuable merchandise and precious metals is conducted. They form a very large proportion of the population, yet, by no similar class elsewhere are they exceeded in devoted honesty, punctuality, patient endurance, and skilful execution of duty. Nor

is this the less remarkable when we recollect the country through which they travel—its disturbed state—and the opportunities consequently afforded for transgression. I have never been more struck with the folly of judging of men by mere dress and physiognomy, than in looking at the arrieros. A man with wild and fierce eyes, tangled hair, slashed trousers, and well-greased jerkin that has breasted many a storm—a person, in fact, to whom you would scarcely trust an old coat when sending it to your tailor for repairs—is frequently in Mexico the guardian of the fortunes of the wealthiest men for months, on toilsome journeys among the mountains and defiles of the inner land. He has a multitude of dangers and difficulties to contend with. He overcomes them all—is never robbed and never robs—and, at the appointed day, comes to your door with a respectful salutation, and tells you that your wares or moneys have passed the city gates. Yet this person is often poor, bondless, and unsecured—with nothing but his fair name and *unbroken word*.

"I regret that I have been able to give only the faintest pencilling outline of Xalapa, which, with all its beauty, has doubtless hitherto been associated most nauseously in your mind with the drug growing in the neighbourhood to which it has given its name.*

"A beautiful scene, embracing nearly the whole of this little Eden, broke on me as we gained the summit of the last hill above the town. A dell, deep, precipitous, and green as if mossed from the margin of a woodland spring lay below me, hung on every side with orange trees in bloom and bearing, nodding palms and roses and acacias, scenting the air with their fragrance, and peering out among the white walls of dwellings, convents, and steeples. In the next quarter of an hour, the mists that had been gathering around the mountains, whirled down on the peaks along which we were travelling, and as the wind occasionally drifted the vapour away, we could see around us nothing but wild plains and mountain spurs covered with volcanic *debris*, flung into a thousand fantastic forms, among which grew a hardy race of melancholy-looking pines, interspersed with fallen trunks, aloes, and *agaves*. Thus the road gradually ascended among desolation, until we reached a height where the clouds were lodged on the mountain tops, and a cold drizzling rain filled the air. In this disagreeable manner, travelling among the clouds, we reached the village of St. Michel, and afterward La Hoya, over a road paved with basalt. From the latter place the scenery is described as magnificent when the day is clear, and the sun is out in its brilliancy. The vapour is said to be then spread out below you like a sea, and the mountain tops and little eminences peer above it like so many islands.

"We passed through the village of 'Las Vigas,' described by Humboldt, as the highest point on the road to Mexico. The houses in this neighbourhood are of different construction from those below the mountains, and are built of pine logs, each tree furnishing but one piece of timber of four inches thickness, and the whole width of its diameter; these are hewn with the axe, and closely fitted. The floors of the dwellings are laid with the same material, and the roofs are shingled. As the houses indicate a colder climate than the one through which we have recently travelled, so does also the appearance of the people, who are hardier and more robust than the inhabitants of the plains skirting the sea.

"After winding along the edge of the mountain for some hours, we obtained an occasional view of the plain of Perote, level as the ocean, and bounded by the distant mountains. The Peak of Orizaba again appeared in the south-east, while the Coffre of Perote towered immediately on our left, and, seemingly in the midst of the plain, rose the Peak of Tepiacualca. Beyond it, on the remotest horizon, was sketched the outline of the snow-capped mountains. All these plains have doubtless been the basins of former lakes; but they now appear dry and arid, and it is not easy to distinguish how far they are cultivated at the suitable season. During the summer, they present a very

* To give you an idea of the profusion of fruit in Jalapa, I will state a fact. I gave a French servant a *real* (twelve and a half cents) to purchase me a few oranges, and in a short time he returned with a handkerchief bursting under the load—he had received *forty* for the money.

I told the story to a Jalapenian with surprise: "They cheated him," said he; "they should have given him nearly double the number."

different prospect, and, losing the guise of a waste moor, only fit for the sportsman, put on a lively livery of cultivation and improvement, far more agreeable than the dark and thorny maguey and the wilted foliage of dwarfish trees, with which they are now mostly covered. We occasionally see the stubble of last year, but the chief agriculture is evidently carried on upon the slopes and rising ground, where the irrigation is more easy from the adjacent mountains, and is not so rapidly absorbed as in the marshy flats.

"We had not travelled this road without our usual dread of thieves. Our guns were constantly prepared for attack, and we kept a wary watch, although during nearly the whole day we were accompanied by a party of lancers, who clattered along after us on nimble horses. Some leagues from Perote we approached the 'Barranca Secca,' a noted haunt of the *ladrones*; and, as we came within gunshot of the place, a band of horsemen dashed out from the ruins of an old *hacienda* on our right and galloped directly to the carriage. The mist had again come down in heavy wreaths around us, obscuring the prospect at a dozen yards' distance; and the guard of troopers had fallen considerably in the rear. What with the fog and the dread of our foes, we were somewhat startled—cocked our weapons—ordered the coach to stop—and were half out of it, when the lancers reined up at full tilt, and after a parley with the new comers, assured us that they were only an additional troop kept here for security. I questioned, and still doubt the truth of this story, as I never saw a more uncouth, or better mounted, armed, and equipped set of men. Their pistols, sabres, and carbines were in the best order, and their horses staunch and fleet; but they may have composed a band of old well-known robbers, pensioned off by the government as a guard; and willing to take regular pay from the authorities, and gratuities from travellers, as less dangerous than uncertain booty with constant risk of life.

"Accompanied by these six suspicious rascals and the four lancers, we quickly passed the wild mist-covered moor, and entered the Barranca, a deep fissure worn by time and water into the plain, and overhung, on all sides, by lofty trees, while the adjacent parts of the flat country are cut up into similar ravines, embowered with foliage. With all the aids of art, the thieves could not have constructed a more suitable covert; and, to add to our dismay, soon after entering the Barranca, our coach broke down!

"We tramped about in the mud while the accident was repairing, and the guard and its auxiliaries scoured the pass. The quarter of a mile through which the ravine extended was literally *lined with crosses*, marking the spot of some murder or violent death. These four or five hundred *mementos mori*, seemed to convert it into a grave-yard; while the broken coach, the dreary day, shrouding mist, approaching night, and savage figures in the scene, made a picture more fit for a Trappist than a quiet traveller fonder of his ease than adventure.

"We were, however, soon again in our vehicle, and for an hour afterward the country gradually ascended, until, at sunset, the sky cleared off, and we entered Perote by a brilliant starlight.

"Perote is a small town, containing not more than 2500 people. It is irregularly built; the houses are only of one low and dark story, erected around large court-yards with the strength of castles. In the middle of the town there is a large square, abundantly supplied by fountains of pure water from the neighbouring hills.

"The *Meson* is at the further end of the town, and encloses a spacious court-yard, around which on the ground-floor (which is the only floor) are a number of brick-paved, windowless stalls, furnished with a bed, a couple of chairs, and a table. No landlord made his appearance to welcome us. We waited a considerable time in the court-yard for his attendance; but as we received no invitation, S—— and myself got possession of a consumptive-looking candle, and sallied out to hunt for lodgings. We took possession of one of the dens I have described, and sent in our luggage; and carefully locking the door afterward (as Perote is the head-quarters of villainy, and the court-yard was full of unshaved, ill-looking devils wrapped up in blankets).

"On one side of the gateway is the *fonda*, or eating part of the establishment, where two or three women were employed cooking sundry strange-looking messes. We signified our hunger, and were soon called to table. Several officers of the garrison, as well as the stage-load coming from Mexico, were then before us. The cooking had been done with charcoal, over furnaces, and the colour of the cooks, their clothes, the food,

and the hearth, was identical ; a warning, as in France, never to enter the kitchen before meals. The meats had been good, but were perfectly bedevilled by the culinary imps. Garlic, onions, grease, chilé, and other nasty compounds, had flavoured the food like nothing else in the world but Perote cookery. We tasted, however, of every dish, and that taste answered to allay appetite if not to assuage hunger; especially as the table-cloth had served many a wayfarer since its last washing (if it had ever been washed), and bad, besides, doubtless been used for duster (if they ever dust). The waiter, too, was a boy, in sooty rags, who hardly knew the meaning of a plate, and had never heard of other forks but his fingers.

"Disgusted, as you may well suppose we were with this supper, I did not remain long at table. We were a set of balked hungry men, and withal, tired and peevish. I put my face for a moment outside of the gate, to take a walk, as the night was beautiful; but S—— pulled me back again, with a hint at the notorious reputation of Perote. It was not eight o'clock, but the town was already still as death. Its population had slunk home to their cheerless dwellings, and the streets were as deserted as those of Pompeii, save where a ragged rascal now and then skulked along in the shadow of the houses, buried up in his broad-brimmed sombrero and dirty blanket.

"We, therefore, at once retired to our cells; I threw myself on the bed wrapped in my cloak, in dread of a vigorous attack from the fleas, and slept without moving until the driver called us at midnight to start for Puebla.

"In half-an-hour, we were once more in the coach galloping out of the town, followed by three dragoons furnished by the officer we had met at supper, who seemed to entertain as poor an opinion as we did of this citadel of vagabondism.

"Although the sky had been clear and the stars were shining brightly when we retired to bed, a mist was now hanging in low clouds over the plain. The road was, however, smooth and level; and we scampered along nimbly, fear adding stings to our coachman's lash, inasmuch as he was the driver of a diligence that had been robbed last spring, and had received a ball between his shoulders, from the effects of which he had just sufficiently recovered to drive on his first trip since the conflict. We galloped during the whole night, stopping only for a moment to change horses; nor did we meet a living thing except a pack of jackals, that came bounding beside the coach along the level and almost trackless plain. I never saw half so frightened a man as our coachman, especially when we passed the spot where he had been wounded. Every shrub was a robber—and a maguey of decent size was a whole troop !

"The early morning, from the rain which had fallen during the night on this portion of the plain, was as cold and raw as November at home; nor was it until an hour after sunrise that the mists peeled off from the lowlands, and, folding themselves around the distant hills, revealed a prospect as bare and dreary as the Campagna of Rome.

CITY OF PUEBLA.—From Perote to Puebla, the road led among deep gulleys, and was exceedingly dusty on the plains. The towns were usually built of the common *adobes*, or sun-dried bricks of the country, and neither in their architectural appearance, nor in the character of their inhabitants, offered any attractions for the attention of a traveller. It was, indeed, a tedious and uninteresting drive over the solitary moors, and I have seldom been more gratified at the termination of a day's fatigue than I was when we entered the gateway of our spacious and comfortable inn at Puebla. In addition to the usual discomforts of the road, we had suffered greatly from the heat during the two or three last hours of our ride, and were annoyed by a fine dust, which, heated by a blazing sun, rolled into our coach from every side, and fell like a parching powder on our skins. A bath was, therefore, indispensable before the dinner, which we found excellent after our fare of the previous night at Perote. In the afternoon I paid a visit to the governor, who promised an escort of dragoons for the rest of the journey to the capital; and I then sallied forth, to see as much as possible of this really beautiful city.

"My recollections of Puebla (comparing it now with Mexico) are far more agreeable than those of the capital. There is an air of neatness and tidiness observable everywhere. The streets are broad, well-paved with flat stones, and have a washed and cleanly look. The crowd of people is far less than in the capital, and they are not so ragged and miserable. House rents are one-half or one-third those of Mexico, and the dwellings are usually inhabited by one family; but, churches and convents seem rather more plentiful

in proportion to the inhabitants. The friars are less numerous, and the secular clergy greater.

"A small stream skirts the eastern side of Puebla, affording a large water-power for manufacturing purposes. On its banks a public walk has been planted with rows of trees, among which the paths meander, while a neat fountain throws up its waters in the midst of them. The views from this retreat, in the evening, are charmingly picturesque over the eastern plain.

"On the western side of Puebla lie the extensive piles of buildings belonging to the Convent of St. Francis, situated opposite the entrance of the *Alameda*—a quiet and retired garden walk to which the *cavaliers* and *donzellas* repair before sunset, for a drive in view of the volcanos of Istazibuatl and Popocatepetl, which bound the westward prospect with their tops of eternal snow. Near the centre of the city is the great square. It is surrounded on two sides by edifices erected on arches through which the population circulates as at Bologna. On the northern side is the palace of the governor, now filled with troops; and directly in front of this is the cathedral, equal, perhaps, in size to that of Mexico, but, being elevated upon a platform about ten feet above the level of the square, it is better relieved and stands out from the surrounding buildings with more boldness and grandeur.

"To the right of the altar is the gem of the building. It is a figure of the Virgin Mary, nearly the size of life. Dressed in the richest embroidered satin, she displays strings of the largest pearls hanging from her neck below her knees. Around her brow is clasped a crown of gold, inlaid with emeralds of a size I had never seen before; and her waist is bound with a zone of diamonds, from the centre of which blaze numbers of enormous brilliants!

"But this is not all. The candelabras surrounding the platform before the altar, are of silver and gold, and so ponderous that a strong man could neither move nor lift them. Immediately above the altar, and within the columns of the large temple erected there, is a smaller one, the interior of which is displayed or concealed by secret machinery. From this the *Host*, amid a blaze of priceless and innumerable jewels, is exhibited to the kneeling multitude.

"As I went out of the door in the dim twilight, and found a miserable and ragged woman kneeling before the image of a saint, and heard the hollow sounding of her breast as she beat it with penitential fervour, I could not help asking myself, if the church that subsisted upon alms, in order to be the greatest almoner of the nation, had fulfilled its sacred charge while there was one diamond in the zone of the Virgin, or one homeless and foodless wretch in the whole republic.

"**PUEBLA TO MEXICO.**—Soon after our departure from Puebla,* we crossed a small stream spanned by a fine bridge, and commenced ascending by a very gradually inclined plain toward the Sierra Nevada. The mountains on our left are a stupendous range, standing out sharply against the bright blue sky, in the clear early light and pure atmosphere, their lower portions covered with dark pine forests, from which the conic peak of Popocatepetl, with its eternal snow, emerges majestically; while, further north, towers its gigantic rival, Iztaccihuatl. Between us and the mountains is the Pyramid of Cholula. As we approach this elevated region, the country becomes well watered, and the plain is

* It is not over two or three hundred yards from the gates of Puebla, where most of the robberies of which I afterwards heard during my residence in Mexico, occurred. A band of some five, ten, or a dozen men, armed, with their faces covered with crape, usually stood waiting in the early dawn, for the diligence. If there were *armed foreigners* in the coach, they would look in, consult a moment, and then ride off. If the passengers were unarmed, and the boot of the vehicle looked heavy and tempting, the result was the perfect sacking of the whole company. Their persons were first robbed and partially stripped as they descended from the door; they were then made to lie down with their mouths on the ground—and their trunks were rifled. One lady, the present prima donna of the Opera in Mexico, lost 600 dollars in doubloons and jewels, at this very spot—notwithstanding a guard had been promised by the authorities, and paid for. The instances, however, were innumerable and *unpardonable*, while regiments of cavalry dozed, within a quarter of a mile, in a city almost under martial law.

While I resided in the capital, during Santa Anna's vigorous administration, he had some sixty five or seventy *garrotted*. Two or three every week. This for a time struck terror into the band, but I learn that lately they have again taken to the road with renewed vigour.

just sufficiently inclined for irrigation; the soil rich, the estates extensive, and cultivated with the greatest care. Immense herds of cattle are spread over the fields, and the land, now preparing for the winter crops, is divided into extensive tracts of a thousand acres, along which the furrows are drawn with mathematical accuracy. Among these noble farms a multitude of habitations are scattered, which, enclosing the numerous population necessary for labour, with the requisite chapels, churches, and surrounding offices, gleam out brightly with their white walls from among the dark foliage of the groves, and impress one as favourably as the multitude of tasteful villages that dot the windings of our beautiful Connecticut.

"We breakfasted hastily at San Martin, and for the next league our ascent was almost imperceptible. At length, we crossed several fine streams, and the road, rising rapidly, struck more into the mountain. There was no longer any sign of cultivation, even in the dells, but the dense forest spread out on every side its sea of foliage. The road was as smooth as a bowling-green, and we swung along over the levels, up hill and down, until we passed the Puente de Tesmeluca, over a stream dashing from a mountain ravine like a shower of silver from among the verdure. After again ascending another mountain, and following its descent on the other side, we reached the village of Rio Frio, a collection of the miserable huts of coal-burners, and the nest and nursery of as fierce a brood of robbers as haunt the forests. In proof of this, and, moreover, that the cross, in this land, is no *sign of redemption*, the sacred emblem was again spread out on every side, as yesterday in the Barranca Secca, marking the grave of some murdered traveller. We were once more in the fields of romance and robbery; yet, well guarded to-day by a vigilant troop, and in good spirits at the near termination of our trials, we again launched forth for our final ride. Leaving this narrow and desolate ravine among the hills, the road once more ascends by a series of short windings through the pine woods, among which the wind whistled cold and shrill as over our winter plains; and, thus gradually scaling the last mountain on our route, while the increased guard scoured the recesses of the forest, we reached the lofty summit in about an hour, and rolled for some distance along a level table-land, catching glimpses, occasionally, of a distant horizon to the west, apparently as illimitable as the sea. The edge of the mountain was soon turned, and as the coach dipped forward on the descent of the western slope, a sudden clearing in the forest disclosed the magnificent Valley of Mexico.

"I am really afraid to describe this valley to you, as I dislike to deal in hyperboles. I have seen the Simplon—the Spleugen—the view from Rhigi—the 'wide and winding Rhine'—and the prospect from Vesuvius over the lovely bay of Naples, its indolent waves sleeping in the warm sunshine on their purple bed—but none of these scenes compare with the Valley of Mexico. They want some one of the elements of grandeur, all of which are gathered here. Although the highest triumphs of human genius and art may disappoint you, *Nature never does*. The conceptions of Him who laid the foundations of the mountains, and poured the waters of the seas from His open palm, can never be reached by the fancies of men. And if, after all, the exaggerated descriptions of St. Peter's and the Pyramids, we feel sick with disappointment when we stand before them, it is never so with the sublime creations of the Almighty.

"Conceive yourself placed on a mountain, nearly 2000 feet above the valley, and 9000 above the level of the sea. A sky above you of the most perfect azure, without a cloud, and an atmosphere so transparently pure, that the remotest objects at the distance of many leagues are as distinctly visible as if at hand. The gigantic scale of every thing first strikes you—you seem to be looking down upon a *world*. No other mountain and valley view has such an assemblage of features, because nowhere else are the mountains at the same time so high, the valley so wide, or filled with such variety of land and water. The plain beneath is exceedingly level, and for 200 miles around it extends a barrier of stupendous mountains, most of which have been active volcanos, and are now covered, some with snow, and some with forests. It is laced with large bodies of water, looking more like seas than lakes; it is dotted with innumerable villages, and estates, and plantations; eminences rise from it, which, elsewhere, would be called mountains, yet there, at your feet, they seem but ant-hills on the plain; and now, letting your eye follow the rise of the mountains to the west (near fifty miles distant), you look over the immediate summits that wall the valley, to another and more distant range—and to

range beyond range, with valleys between each, until the whole melts into a vapoury distance, blue as the cloudless sky above you.

" Yet, one thing was wanting. Over the immense expanse there seemed scarce an evidence of life. There were no figures in the picture. It lay torpid in the sunlight, like some deserted region where Nature was again beginning to assert her empire—vast, solitary, and melancholy. There were no sails—no steamers on the lakes, no smoke over the villages, no people at labour in the fields, no horsemen, coaches, or travellers but ourselves. The silence was almost supernatural; one expects to hear the echo of the national strife that filled these plains with discord, yet lingering among the hills. It was a picture of 'still life,' inanimate in every feature, save where, on the distant mountain sides, the fire of some poor coal-burner, mingled its blue wreath with the bluer sky, or the tinkle of the bell of a solitary muleteer was heard from among the dark and solemn pines.

" What a theatre for the great drama that has been performed within the limits of this valley! When Cortez first stood upon these mountains, and looked down on the lovely scene, peaceful then and rich under the cultivation of its Indian children; and hills and plains covered with forests, and much of what is now dry land hidden by the extensive lake, in the midst of which rose the proud city of the Aztec kings, filled with palaces and temples; in site, another Venice on its inland sea; in art, the Indian Attica: when he beheld, I say, this tranquil scene at his feet, what must have been the avarice and the relentlessnes of an unknighthly heart that urged him onward to the destruction and enslavement of a civilised and unoffending people, whose only crime was, the possession of a country rich enough to be plundered to minister to the luxury of a bigoted race beyond the sea!

" Our descent commenced from the eminence where we had halted awhile to survey the valley. Our coachman was an honest Yankee, fearless as the wild horses he drove, and they scoured along under his lash as if we had the level roads of New England beneath us. But, alas! we had not. I question whether there are any such roads elsewhere, in the world; nor can you conceive them, because your experience among the wilds of the Aroostook or the marshes of the Mississippi, can furnish no *symptoms* of such highways. They were gulleys, washed into the mountain side by the rains; filled, here and there, with stones and branches; dammed up, to turn the water, by mounds a couple of feet high; and thus, gradually serpentineing to the foot of the declivity. You may readily imagine that there was no such thing as *rolling* down with our rapid motion over such a ravine. We literally *jumped* from dam to dam, and rock to rock, and in many places where the steep is certainly at an angle of 45 deg., I must confess that I quailed at the impending danger, while the horses bounded along as fiercely as if they bore Mazeppa. But the driver knew what he was about, and in an hour drew up at the Venta de Cordova, where, when I alighted, I found myself deaf and giddy from the heat, dust, and irregular motion. In a few moments, however, the blood poured from my head, and I was relieved, though I felt ill and uncomfortable the rest of the day. Two of the other passengers suffered in the same manner.*

" The succeeding distance of about thirty miles lies along the level, and skirts a detached range of volcanic hills between the lakes of Tezcoco and Chalco, the same which I described, some time ago, as rising like ant-heaps from the plain. We passed the village of Ayotla, and through a number of collections of mud-walled huts and desolate hovels, buried up among palm-trees and fields of barley and maguey (resembling the streets of ruined tombs near Rome); but nowhere did I see any evidence of neat or careful cultivation, or of comfort and thriftiness. In this the valley of Mexico is, markedly, different from that of Puebla. Misery and neglect reigned absolute, Squalid Indians in rags, exhibiting almost entirely their dirty bodies, thronged the road; miserable devils coming from market; children, half-starved and naked, and women whose wiry and uncombed hair gave them the mien of porcupines.

* Almost all travellers suffer from giddiness and flow of blood to the head on their arrival on the Valley of Mexico. This arises from the great rarefaction of the atmosphere, 7500 feet above the level of the sea.

"At length, as we gained the top of a little eminence, our driver pointed out the 'City of Mexico':—a long line of turrets, and domes, and spires, lying in the lap of beautiful meadows, and screened, partially, by intervening trees, planted along the numerous avenues leading to the capital. About two leagues from the city we came to the ancient border of the Lake of Tezoco, now a marshy flat from which the waters have receded. Here we mounted the *calzada*, or causeway, raised above six feet above the surrounding waters.

"This road is not one of the ancient avenues by which the city was approached, across the lake, during the reign of the Indians, but was constructed at great expense by the old Spanish government. Although the land to the north of it is covered with saline particles that are perfectly visible as you ride along, yet the southern flats, being watered by the fresher stream from Chalco, which flows through several apertures of the dike, are in no manner discoloured. The northern marsh was covered with myriads of ducks, and looked as if it had been literally *peppered* with wild fowl. The birds are murdered in immense quantities with a sort of infernal machine, formed by the union of a great number of gun-barrels, and they furnish the chief food of the poor of Mexico.

"Thus, about four o'clock, we passed this unprepossessing approach to the capital, driving by the body of a man who had just been murdered, lying on the road-side, with the blood flowing from his recent wound. Hundreds passed, but no one noticed him. At the gates we were detained only a moment for examination, and we entered the city by the Puerto de San Lazaro. A saint who suffered from impure blood, and presides over sores, may well be the patron of that portal and portion of the suburbs through which we jolted over disjointed pavements, while the water lay green and putrid in the stagnant gutter, festering in the middle of close streets, swarmed with ragged thousands. As I looked at them from our window, they seemed more like a population of witches, freshly dismounted from their broomsticks, than any thing else to which, in fancy, I can readily compare them.

"But the journey ended as we drove to the hotel Vergara, where a dirty court-yard, filled with sheep, chickens, horses, bath-houses, and a blacksmith's shop, received our jaded crew. I found that a kind friend had already prepared rooms for me, where, after a bath and dinner, I was made as comfortable as possible, by the attentions of a hospitable landlady."

Mr. Gilliam, who travelled from Vera Cruz in a clumsy-wheeled carriage called a *diligencia*, but who says he neither understood Spanish nor French, confirms the truth of Mr. Mayer's "Descriptive Sketches," and he dwells on the attacks of robbers, the extravagant charges, and bad accommodation on the road—ten dollars being the charge for conveying a trunk from Vera Cruz to the City of Mexico. The journey by the diligencia, dragged by eight horses, was agreed to be performed in eighteen days; fifty dollars for each person was the fee charged; they were escorted by a troop which Mr. Gilliam considered as suspicious as the Ladrones. He admits that parts of the old road were in good condition, and "looked to him like a well-improved street," and expresses his impatience to escape from the *Tierra caliente* and the *malaria vomito*. He complains of the "half-done frijoles" (black beans) and "half-done fowls," as food which no human being could eat; and says, an old Belgian doctor was so disgusted with half-cooked chickens, "that, in self-defence, he lived on little monkeys." He speaks of the temperate region, *tierra templada*, in contrast "with the gay sultry region of many-blossoming flowers, that border the sea," as abounding in a more stately growth of forest, "for with the varieties of the imusquite and the liquid amber, I now beheld the tall cypress; and as the diligencia would now and then wind down some craggy steep into a deep glen,

where my ears would be stunned by the wild screams of the parrots, and all the other beautifully-plumed feathered tribes, it was only necessary to ascend the opposite height to be transported again to the *tierra templada*, there to perceive the forest a perfect medley, from its being indiscriminately mixed, and the whole wood so thickly matted and entwined, being apparently impervious to the foot-steps of animals, with a scrubby bushy growth of deepest green colour, which universally makes the eye delight to dwell upon it." He describes the region he travelled over as volcanic, and all visible rocks as lava.

At XALAPA, said to be the most beautiful and agreeable town in Mexico—the place to which the Vera Cruzians retreat from the *vomito*—"perpetual spring," he says, "has her reign there, and vegetation, therefore, is ever verdant and blooming." Mr. Gilliam in describing this town, says, "that which I chiefly delighted in while at Xalapa was, the pleasing sight of the ladies, whose beauty seemed to partake of the eternal blossoming of their native region; for *smiling loveliness* appeared to have *positively delighted to dwell on their symmetrically angelic countenances, and while they could often be seen peering from behind the grated windows, adorned with flowers, yet no blossom was half so lovely as the sweet rose that bloomed under the delicate brunette hue of their cheeks.*"

On ascending to the Plain of Perote, which at the conquest was covered with a forest, Mr. Gilliam says, "to my view it presented not a single tree or spontaneous shrub; all appeared a cold, dry, barren waste, in the midst of which, at an elevation of between seven and eight thousand feet above the sea, sat the dark and dreary-looking Castle of Perote—a state prison." He passed, in his route, numerous "*ranchos*, the miserable open huts inhabited by Indians, the indolent, and the poor." Now and then a hacienda, or "a farm of vast extent, covered with green verdure, having multitudes of flocks feeding upon it, and attended by herdsmen and shepherds, which would forcibly recall to the mind of any individual the days of the Latins so poetically described by Virgil in his *Georgics*!!" "Generally of near proximity to the hacienda would be a *pueblo* (village), built of sun-burnt bricks, and having also its costly church of lofty towers." "In one or more of the deep valleys of Perote, I saw that the improved American ploughs were used for tillage, and a wealthy Mexican, a noble benefactor of his people, had at one time made a large importation of these ploughs. But one of the glorious revolutions of Mexico was *coeval* with the beneficence of the good citizen, and his ploughs shared a scattered and ruinous fate." "The plough universally used in Mexico is the instrument handed by the Romans to their posterity." "Pueblo de los Angelos," he observes, "is said to contain above 100,000 inhabitants." "In passing the ranges of the Popocapetl and Iztaccihuatl, I was pleased to see that the mountains were covered with a grove of timber of good size, for I there saw

oaks and pines of the same dimensions that I had beheld in Old Virginia." He everywhere passed "crosses of melancholy bearing, being memorials erected over the bones of murdered human beings, and thus consecrated." The meson, or Mexican road tavern, afforded a "cup of chocolate which had been boiled, and frothed by the hands of a beautiful Mexican girl." He met crowds of *arrieros*, with their *cargoes* on packed mules, loaded with the second indemnity from the Mexican to the United States government. But Mr. Gilliam does not experience the "realisation of the sublimity of the scene as the climax of the mountain had been attained," from whence "the far-famed Valley of Mexico was then opened out before our view, like a map; and, indeed, it was a lovely and magnificent sight to behold." He says of the plain or valley of Mexico—

"I could only admire the extensive fields spread out before me, for the Valley of Mexico is justly renowned for its fertility, all the lands are said to be capable of cultivation by irrigation, from the abundance of water afforded from streams and lakes. Thus, whilst I might, upon the right hand, be pained to see the sterility of a tract of country made so perhaps by the neglect of its opulent owner, and appropriated as a common for grazing, on the left I would be greeted with the pleasing prospect of miles of extent, and as far as the eye could reach, of lands cultivated alone in maize, or Indian corn; and while now I would arrive at verdant nooks, with acres of land cultivated in *chilé* or Indian pepper, of which the inhabitants make considerable use,—and I was informed that a single individual, from one crop of *chilé* alone realised the immense sum of fifty thousand dollars—and then I would come upon the green and flowery fields, cultivated to feed the cochineal insect. But what the more attracted my attention was the deep green, wide-spreading aloe, called by the Mexicans *maguey*. This plant has, in its perfection, a stem shooting up to ten or fifteen feet in height, with an appearance of clustered flowers at its top; when ripe, the stem or stalk, of a liquid pithy substance, is consumed in a raw state by the natives. But such being the variety of the uses to which this spontaneous plant is appropriated by the Mexicans, I shall speak of its multifarious properties and consumption when my longer travels and residence in the country will better enable me to describe them.

"The view of the Valley of Mexico is certainly beautiful and grand, and but for the painful absence of timber, and the vast sterility of much of its territory, might perhaps be the most magnificent sight anywhere to behold upon the face of the globe. There is no country in the world, from the best information I could obtain, where individual citizens hold as large bodies of land as in Mexico, and it is estimated that from seven millions of inhabitants in all probability less than five hundred thousand are the owners of all the *terra firma* of that rich country."

Mr. Gilliam departed from the city of Mexico on the 8th of January, 1844, on his route northward for St. Francisco, as consul there from the United States, by the diligence for Lagos; he dined the first day at Tula, on Mexican cookery, scorched his throat with *chilé*, slept in the castle of a hacienda, and traversed the Plain of Gueretaro—a hot country with orange and other fruit-trees in bearing.

Gueretaro situated in a ravine, with 10,000 inhabitants, is "a cotton-manufacturing city, and one of the most improved towns in the republic. One cotton factory is owned by an enterprising American gentleman. Gueretaro is famed also for its revolutionary efforts." Mr. Gilliam, from the reports of robberies and Ladrones, travelled with, "in each of his breeches' pockets, a six-barrelled pistol, and on his side a good bowie knife." The

towns and haciendas he found garrisoned by Santa Anna. In the streets of Gueretaro, at night, soldiers and priests abounded ; the Plaza, with its fountains were lighted up by blazing torches ; and groups of people were selling fruits.

He passed through Salamanca, another cotton-manufacturing town, where the machinery was moved by animal power, and cotton cloth which cost 37½ cents to produce, could be made in the United States for 12½ cents. He notices everywhere the supreme authority of the priests, and the universal superstitious observances. He complains of the scrutiny at the internal customs' barriers.

He passed through the town of Gunajuato, celebrated for its productive silver mines, with much gold in the silver, but not now so extensively worked as formerly. From Gunajuato the road was good. He passed several good-looking towns, especially Silao, with 4000 inhabitants ; Leon, with several handsome churches ; Lago, situated on the largest river he had seen in Mexico, about 400 miles from the capital. Here he met a party of Americans on their way to San Blas, to establish a cotton manufactory,—they were accompanied by their *ladies*. Each man was mounted on a good spirited horse and saddle, with four pistols in the holsters, a double-barrelled gun, &c.

At Lagos, which is conveniently situated, there were "two mills for grinding wheat—the only ones he saw in any town in Mexico." Vegetables were abundant. The houses were painted outside and inside with representations of vineyards, gardens, landscapes, &c. From this place he travelled in a *carretella*, a kind of waggon or coach, hired from a priest. Crossed the plain of La Villota. North of Lagos, the old Spanish road, though not repaired, was still good.

The hacienda of Pennuelles, north of Villota, where he was refreshed with chocolate, had a commodious house and outhouses. The proprietor was a great wheat grower. Inspected his fields, which were of great extent.

At the town of Arqua, containing 4000 inhabitants and formerly prosperous, he met an Italian opera company from Mexico. The town was well-built, and contained numerous squares and churches. He also met waggons belonging to a French merchant residing at Chihuahua, driven by Americans. The waggons had been built in the United States, and made journeys from Chihuahua (1000 miles) to the city of Mexico ; also from Santa Fé (2000 miles). The American waggon is admirably adapted for such journeys ; the Mexican waggon, on the contrary, is the most rude, clumsy-wheeled carriage possible, and is drawn by from eight to twelve oxen.

Mr. Gilliam considers the Mexicans degenerating in all that regards carriages, implements, harness, &c. Before reaching Zacatecas, he passed the hacienda of San Jancinto, placed in the centre of Indian corn-fields several miles in length and breadth—with wheat and other crops. Further onward, at the hacienda

of Del Refugio, he observed herds of sheep, numbering several thousands: and on advancing north, herds of all kinds were seen.

At Zacatecas, religious processions were numerous, and the bells of the churches were perpetually ringing. The streets were crooked and narrow. On leaving that town, Mr. Gilliam considered he would be fortunate, if he escaped being murdered by "the lawless Mexicans who infest the highways, or by the merciless Cumanches."

He accuses other nations of egotism, and he tells the Mexicans that "in the timely moment, the angry war-spirited eye of the United States is more to be feared than disregarded."

He describes the Avenida of Zacatecas as a lovely, romantic place. Misdemeanours are punished by subjecting the offenders to hard labour on the streets and highways. They are manacled two and two; and he calls them "the united brethren."

In the *Mesons* (inns) the boarders do not dine together: each sends or goes for his meals to the *fonda* at any hour. The poor, when they die, are buried without coffins, and naked. The price of iron, on account of the protective system, is more than one shilling the pound weight.

On travelling north from Zacatecas, he engages an United States citizen as interpreter, who cheats him, and would have betrayed and murdered him.

The ascent from Zacatecas over the Malanoche is by a road constructed under an English engineer, and the labour was performed by criminals. He says the Mexicans never wash when travelling. He had numerous encounters with the Indians on the Madre Monte, and had various escapes and adventures before arriving at Canales.

The following abstracts are descriptive of the country, and especially the silver-mining districts between Zacatecas and the north-western termination of Mr. Gilliam's journey to near the Gulf of California:—

"The hacienda Paras, signifying a vine, was the only estate in Mexico where the grape was permitted to be cultivated by the King of Spain. It was, previous to the revolution, the property of a Spanish nobleman, but after the independence of Mexico, he sold it to a Spanish house in the city of Mexico, and then it was resold to the house of Staples and Co., of the same city. The Barings of London, afterwards became the purchasers, but were prevented from holding the property by the Deputies of Mexico passing a law preventing foreigners from buying or selling lands in that country; and it is said that the speculations of the hacienda Paras gave origin to the passage of that act. This estate, I was credibly informed, besides the extensive vineyards, producing many thousand gallons of wine and alcoholic liquors, possessed, when the Barings purchased it, upwards of three hundred thousand head of sheep, with a corresponding proportion of other stock.

SILVER MINES OF ZACATECAS.—"As we gradually ascended the plain to the mountains of Zacatecas, we were exposed to a heavy cold wind, that swept over the face of the earth, unimpeded by forest. I was sometimes diverted by the Mexicans in the fields, whose loose serapis would, by the violence of the winds, float from their shoulders like the wings of so many *zopilotes*, buzzards, as if the natives would be blown away with.

"At about three o'clock in the evening, my American companion pointed out to me the rich mountains of Zacatecas, in a deep gorge of which was built the city of the same name. The American had, during his residence in Mexico, been engaged in mining at that place, and could, therefore, from his perfect acquaintance with it, minutely trace out, for my understanding, a vein of silver ore, the only instance of the kind known in the world, which rose to the surface of the plain, and with precision follow its ascent up the mountain, and describe the visible walls and buildings, where shafts had been sunk upon the vein and its branches. I was much surprised when I perceived that the veins of silver ore were perceptible upon the surface.

"The laws of Mexico bountifully provide for the miners, as it is the privilege of any one to search for ores, and to work the veins when found, as his exclusive prerogative. When an individual has made a discovery of rich ore, it is his duty to survey a given number of acres of land, for the use and benefit of the mine, and have the same recorded in the office of the alcalde. He must then commence to work it in ten days' time, with a particular number of hands, and, at stated periods, increase his expenditures to an amount limited by law. The discoverer, failing to comply with the requisitions, forfeits all claim and title to the property, and may be ousted by the will of any other occupant who can punctilioously perform the demands of government. The proprietor of the land upon which the discovery has been made, is always pleased at the location of mining-operations upon his territories, for it brings to his door a ready market for all the surplus of his hacienda campus. Being contented with the profits of his grain and stock sold to the operators of the mine, he has hazarded nothing in the uncertain results of opening and proving it: and besides, wherever a shaft is sunk, there is also a town erected, which likewise affords a speculation in lots, to the original proprietor of the soil.

"The principal vein of silver ore at Zacatecas, which first shows itself in the plain, ascends the nearest mountain, and is discovered about midway, where a shaft has been sunk to a great depth, but is not now worked. The vein then descends over the side of the mountain, and, after crossing the next ravine, suddenly ascends to the top of the next cone-shaped peak, and so on, ascending and descending, until it dips under the city, and again rises to the top of a high peak, immediately to the north, overlooking Zacatecas.

"The appearances of the range of mountains, upon which are the veins of ore, are like all others in the interior of Mexico. They are almost deserted by vegetable growth of any kind; for the small amount of soil on these heights, generally, only produces a thorny, scrubby growth, that makes but a thin appearance in places. The silver mountains of Zacatecas, to my view, had something of a peculiar appearance, for they seemed to have been thrown up more abruptly, with a greater number of cones, having nipples crowning their summits. They seemed to have contained more of the native red rock of the country than any other mountain that I had beheld. I was informed that in mountains where silver was most prolific the rock chiefly abounded in porphyry, green, and red-stone.

"But to return—as I approached the mountain a large convent was exposed to my view, which was a present to the order of Gray Friars by the owner of one of the mines. It was surrounded by the village of Guadaloupé, which had a romantic aspect, situated just at the foot of the mountain, commanding the pass, where I was directed the road to Zacatecas. Every town, of any consequence in Mexico, has its pueblo of Guadaloupé, erected in honour of the patron saint of the country.

A GRANARY.—"Between the road and the village I perceived a high wall enclosing a large plot of ground, which I supposed to be a fortification; but my friend informed me it was a granary belonging to Señor Don Garcias. Such granaries were not common, but had been invented and built by him, to prevent insects from injuring his grain; his speculations in that article having been extensive; in one of which he is said to have made above a hundred thousand dollars by one purchase.

"The plan he adopted to preserve grain for any given time, was to build houses

within the enclosure, of a cone-like form, about twenty feet at the base. They are stuccoed, and when filled with grain, the port or door is also plastered over, light, air, and moisture are all excluded, and the grain never becomes damaged.

WORKING A SILVER MINE.—“I was conducted by the polite Mr. Kimble over his *hacienda beneficio mineral*, the largest one in the world, and where more silver was manufactured than at any other hacienda known. This mine is the only one worked to any profitable extent in the whole country that entirely belongs to a Mexican company. To give my readers an understanding of its magnitude, and the consequent expenditures of raising the ores, and reducing them to silver, Mr. K. assured me that it required an outlay of 50,000 dollars per week to conduct its operation. The mine is worked by steam-power, the fuel costing fourteen dollars per cord.

“The administrador conducted me first to the crushing apartment. In this extensive room were many tons of ore, deposited in the condition in which it was brought from the mine. The ore resembled fragments of stone, fresh hammered for a macadamised road, each piece large enough to pass through an inch ring. In this form it is thrown under the crushing-mill to be pulverised. This machine is similar to a powder-mill, with the exception that the beams are heavier and closer together. Having gone through the process of crushing, the ore is removed to the grinding mills, and in this hacienda there are many.

“The grinding mills are circular, and from ten to fifteen feet in diameter. They can be propelled by any kind of power, but in Mexico that of mules is most generally used. The bottoms are of porphyritic rock of the greatest solidity that can be obtained. Over this solid disk are suspended three long heavy stones, also of porphyry. These are held to their places by chains, which connect them to three horizontal beams, extending from the shaft pivot that rests upon the centre of the disk. The stones have their front edges a little elevated, so as to receive the ore, when in motion, while the rear portion performs its duty by grinding it to an impalpable powder.

“When the ore is put into the grinder, water is from time to time added to it, until, in the process of pulverisation, it acquires a thick and paste-like appearance and consistency, which requires much time. The process of grinding completed, the ore is removed to the great square of the hacienda, which I should judge contains about two acres of land, where it is deposited in circular beds of about ten feet in diameter, upon the pavement of the square, in the same manner as a brick-yard. Salt, or salt earth is, in suitable quantities, sprinkled over the pile, as also a little proportion of pulverised pine bark, and if this cannot be secured, dried manure is used as a substitute. The whole is then trodden by horses for some hours, until all the parts have completely acquired an admixture. It is then left for three or four days, when a substance, prepared from copper ore, called *micastral*, is added. The whole mass is then sprinkled with quicksilver in considerable quantities. It is then worked with horses for five or six hours, after which it is left until the next day, when a little water is added, being worked repeatedly from day to day until the whole has effectually amalgamated. When this is consummated, a suitable portion is deposited in an elevated stone vat, so that the water may escape. A large amount of water is again added to the ore, when the whole is rapidly mixed, by a fly-wheel in the vat, propelled by mules, just like the pool of a paper-mill.

“In this process the amalgam of the mineral settles to the bottom, and when the whole mass has been thoroughly washed, the water is discharged, and the offal escapes. The deposited amalgam is cleansed by being filtered through a canvass, until it assumes a plastic state, when it is made into forms of triangular bricks, by means of moulds. These are set up into a circular mass, with interstices between each. A copper bell is then placed over the whole, in the presence of all the officers of the hacienda, which is then covered over with charcoal, and this is kept ignited for about twelve hours, by which time the mercury is all sublimated. Being allowed to cool, the silver is taken out in a pure state, ready to cast into bars.

“It requires six pounds of quicksilver to obtain one mark of silver, including the incorporation and the bath, which is the amalgamation, and in the separation there is a

loss of the same weight of silver, as of mercury, which is a fraction, besides an additional consumption of mercury, that has never been accounted for.

"During the whole of the above process of extracting the silver, that is to say from the commencement of the washing, until the fire is lighted around the bell containing the amalgam, the administrador has his officers summoned to attend, to prevent the secreting of the metal, but after the charcoal is ignited all is safe, for if those left to watch the fire should raise the bell, the inhaling of the sublimed mercury, a certain result of the imprudence, would destroy life.

"The appearance of the amalgam, when the copper bell is lifted from it, is porous, like a honey-comb, which is caused by the quicksilver leaving the silver in sublimation. Thus, it is perceived, that to make pure silver is no easy task, but requires days of labour from man, beast, and machinery, as well as the watchfulness necessary to be bestowed on it.

"After the silver is cast into solid lumps, about the size and shape of pigs of lead, as seen in the United States, it is carried to the mint, when, agreeable to its weight, being previously assayed, its value in coin is received.

"From the office of the administrador it is next carried into the furnace room, where the pigs are melted, for the purpose of casting them into bars, eighteen inches in length, one and a half broad, and a quarter of an inch in thickness. They are then weighed to discover if they correspond with the original weight of the pigs. The bars are then put under the rolling mill, where they are reduced to a flatness consistent with the dimensions of the coin to be manufactured. The thin slips of silver are then taken to machinery, where they are cut to the different sizes of money, and from thence to the edging mill, which prepares it to receive the impression of the Mexican eagle, prickly pear, bee-hive, sun, &c. From thence it has to pass through the pickling, or washing apartment, where the coin is cleansed, and receives its perfect brightness, and is rendered fit for use.

"The silver, from the time of its being first melted into pigs, until it is washed, never passes from the hands of one workman into those of another, without the scrutiny of weight and counting. And thus it is, the invaluable metal, when scattered to the world, in its fluctuating passage, ever creates the greatest solicitude to its possessor, until it returns to nature by invisible atoms.

"The mines of Zacatecas and Frisnillo are said to be about the oldest known in Mexico, and from their richness, and the length of time they have been worked, have produced an amount of bullion that would almost seem incredible. A gentleman, of high standing as a miner, informed me that it had been estimated that Zacatecas and Frisnillo had yielded two hundred millions of the precious metals. There are two kinds of silver mines, designated by the letters A and U, owing to the two different ways that veins of silver make their appearance generally.

CHANGE OF CLIMATE.—"After we had mounted, and were leaving San Alto, I perceived that my previous day's journey had brought me to a warm country, for many of the houses of that place were fenced in by the tall *organo*. This is a species of the prickly pear, and is not only beautiful to look at, but a curiosity in the vegetable kingdom. It is of a perfect deep green colour, and rises from the ground in a solid column, of an equal size, often reaching a height of twenty feet. It is regularly fluted from the bottom to the top, as if done by the exactness of an artist's line.

"The *maguey* also flourished here. It is this plant which, I believe, is said to blossom once in a hundred years. It is true, that the colder the latitude, the later it will flower; but, in the climate of Mexico, it generally blossoms once in seven years.

"My journey, on this day (after leaving the mining town of Sombrereto), was uninterrupted, save by fatigue, hunger, and intolerable thirst; for we found neither pool nor stream of water. The country through which we travelled was uneven and rolling; but, during the latter part of the day, the plain became a dead level, and, from first, having to travel through the low musquite-growth, we came to a cove of broad shady trees, small, and thinly scattered over the land, which might be denominated a forest.

"Just before the set of sun we hove in view of the castle of the Hacienda campus de los Muleros (a place of mules), yet every other kind of stock and vegetation was raised

and cultivated there, for it was one of the finest estates that I had ever beheld. The sight of the premises was most congenial, for it was the first house that I had seen the whole day; although it was full five miles from me, it promised repose from my toils, at no very distant period, and I felt cheered with the hope. Presently we came upon a gang of small red wolves, common in Mexico, and then we approached a herd of many thousand sheep: at length we passed the ranchos of the place, and arrived immediately in front of the great house.

"One of my servants, who had been sent before me to the castle, informed me that the administrador had said, that there was no spare room for strangers; for the house was filled with corn, saving one apartment for himself and wife; and that I would have to seek lodgings in one of the ranchos. The servant also stated, that there was much excitement with the people, resulting from the fact of two murders, that had been committed that day, near Muleros. I felt perplexed and disappointed in not being decently housed, for I had never yet lodged in a filthy rancho.

"However, there was one other good building in the place, from which a well-dressed young Mexican came out, and invited me to accept a room in his dwelling. I thanked him for the offer, which I accepted. Mine host was a gay and conversant gentleman, who had but a few weeks been wedded to a bouncing black-eyed Mexican girl. He informed my interpreter that the proprietor of Muleros was a very inhospitable man, and that he believed that he had a part in all the many robberies and murders which happened in that quarter.

"During that day several things occurred of a diverting nature. First, in passing by an extensive corn-field, I perceived up a distant tree, in the midst of the corn, a nest, and, as I really imagined, a bird in it, and observed to my interpreter that there was the largest zopilote that I ever beheld. He laughed heartily, and informed me that it was nothing more nor less than a Mexican wrapped in his serapi, guarding his crop. Crops in Mexico are watched both day and night, to prevent the stock, and two-legged thieves, from molesting it."

Speaking of some Ladrones whom he passed, he observes—

"It is the rule in Mexico, for the weaker party always to give the way. Our companies were equal; but, as I had extra animals, I certainly was entitled to the road. And if armed men, who are not travellers, do not give the road, it is conclusive evidence, as I had been advised, of their hostile intent. We arrived in safety at San Causin, a hacienda campus. The water was good; the tortillas, the frijoles, the chili, and the stewed mutton, were all, to hungry man, delightful; and sleep, on that night, was never more refreshing.

"On the following morning, all of my men being in readiness to recommence the journey, which was that day to put me in the city of Durango, I gave orders that all of our guns and pistols should be discharged and reloaded, which had not been done since we left Zacatecas, as I felt desirous of witnessing the performances of our weapons. The volley we fired was equal to a commandant's salute, as we numbered about forty rounds, eighteen of which were from my own person and saddle.

"At every place we stopped, accounts of murders and robberies were detailed. We had not travelled more than five leagues before we came upon the corpses of two men, who had been murdered the day previous; one of them appeared to have come to his end by a bullet—the other had several shocking sabre wounds.

"On this day I had to cross the same river twice. The last time I was ferried over in a dug-out, which cost me one dollar and a half, though my animals had to swim across with the Mexican who drove them. I had then travelled about 1400 miles in Mexico, and of the few rivers that I had seen, none of them was above a moderate stone's-throw across.

"The country over which I had passed was thinly covered with musquite growth, and some cotton-wood; but, upon being landed over the ferry, I was upon the plain of Durango, a beautiful level country. Although the table-land was totally divested of timber, yet the mountains of Durango towered with the pine, the cypress, and other spe-

cies of trees ; and, near to the city, Mr. Lakeman, an American, is the proprietor of an iron furnace."

DURANGO.—On the 9th instant, at nine o'clock at night, he entered the city of Durango, and put up at the De la Santa Paula meson. The meson joined a large religious edifice, in which the Inquisition was formerly located. It is called De Cadena Casa, the chain-house. From that building, for some few days in the year, a chain was extended across the street, during which time, if any individual committed any offence or crime against the law, and he could lay hands upon that chain, before arrested by the legal authorities, he escaped all future molestation or prosecution. Thus crime was encouraged through the instrumentality of religion.

"In the De Comercio Plaza, all kinds of fruits, provisions, and merchandise were offered for sale—promiscuously spread upon the pavement ; and in such places my interpreter informed me the ladrone vended such earnings as be desired to part with.

"The Avenida of the city of Durango was as lovely and delightful a retreat as I had ever in my life enjoyed. A grove of trees shaded its clean walks and seats, whilst a fountain of water refreshed and cooled the atmosphere. It is located between the Plaza de los Toros, and the town, and commanded a view of the plain, the city, and the extended mountains around, and a more picturesque scene I never beheld. The convento of the patron saint of the town was situated upon a romantic mound of earth and stone. The view from this edifice excels the imagination of poet and artist, and exceeds any other scene of the kind ever before exhibited to my view. The city of Durango appeared to cover about the same amount of space as the city of Mexico. The buildings are not so high, but are, otherwise, not less in dimensions. Durango is a bishopric, and the two high steeples of the cathedral towered far above those of the many other churches and convents of the place.

"In this town has long been established one of the nine mints belonging to the government. It was not a little amusing to see my Zacatecas servants comparing the coins of their own city with those of Durango ; while one of them said, satirically, that the bird on the Durango coin looked more like a zopilote (buzzard) than the Mexican eagle. Another responded that he would be rejoiced if either of the fowls would build a nest in his pocket, and hatch young ones there. The inhabitants of Durango were fewer than I had supposed, judging from the extent of the city. I was informed that the population did not exceed 30,000.—(See Mr. Gregg's account hereafter.)

"The great silence that prevails in Mexican towns is remarkable, when the church bells are not ringing, and from the garrison the clang of the trumpet-horn is no longer blown. From twelve to three o'clock in the afternoon, all is still, and from a distance no sound is heard ; and, in fact, in the hot valleys, and on the coasts, the doors of the houses are all locked, and the inhabitants so wrapped in sleep, that a traveller might ride through the streets of a town without seeing a human being.

"The city of Durango had, in the month previous to my arrival, suffered a heavy calamity, which resulted in the serious damage, more or less, and the ruin of 400 houses. The cause of this destruction of property had its origin from the heavy rains that had fallen, which had so saturated the sun-burnt bricks, that the crumbling walls were not able to support the roofs, and of course they tumbled in. It was not in the knowledge of any one that, in the month of January, it should rain, and none of the inhabitants had ever experienced, in the wet season, so great and continued a fall of water as came so unexpectedly upon them. The sudden rise of the streams and small rivers was so rapid as to do much damage to the haciendas, to drown stock, and wash down houses.

"On the 12th instant, I had the honour of being presented to Cesmo Sir Gobernador y Commandant General D. Jose Antonio Heridia. I did myself, on this occasion, the distinction of showing the general *an American uniform*. After some conversation, I retired, leaving him uninterrupted in his multifarious public duties. From the government-house I went to that of Mr. John Belden, an American, of the city of New York, who had invited me to dine with him that day. Mr. Belden had been successful in business, and had accumulated a large fortune ; and whether or not to please himself

or the Mexicans, I cannot say, he often wore costly diamond jewels, and hence he was called the Prince of Diamonds.

"The people of the city of Durango, both foreign and native, seemed to be of a better order than any others I had seen in all Mexico. This possibly might result from the circumstance of having such men as Ramires residing amongst them. The Bishop of Durango, also, was the only pious man that I heard of during all my travels in that country.

"This celebrated and beloved bishop is said to be truly religious. I was informed by a distinguished citizen that, sacred to his vow, he never had a female to enter his house, and that all of his servants were men; a fact unknown in relation to any other clergyman in the country. His father-confessor accompanied him on every occasion, and regularly, three times a day, he made confession.

"Much to my regret, I had to exchange my American dress for the Mexican *jaceti*, a roundabout jacket. Long-tailed or frock-coats are never worn, excepting at the capital, or by foreigners; and, as a gentleman informed me, if a man should be seen riding in any other apparel than that of a jaceti and leather pants, he would be looked upon as a monster, and accordingly almost stoned to death. It is very important to conform to Mexican costume, both to gratify Mexican vanity, as also to disguise yourself as a native, for the traveller cannot know when he may hear the exclamation, 'Death to all foreigners!' The handy and comfortable little jacket I did not at all regard, but it was the heavy weight of iron and steel with which I was obliged to encumber myself and saddle; for to my belt was a powder-flask, a bag of bullets, two six and one single-barrelled pistols, a bowie-knife, and a sword; while looped to the horn of my saddle was a double-barrelled gun, holsters with two pistols, and my nine-inch barrel rifle pistol, hanging to my right, on the skirt of my saddle.

"As in the journey before me I should be often obliged to *bivouac* in the open air, I had provided myself with a tent, as also an additional supply of London pickled-salmon, and ham, crackers, and jerked beef. At Durango, I was advised to employ a guide, as no one could find the way to Canales, excepting those who had travelled the mountains. I did not discharge my interpreter here, for the reason that I found no serious complaint to lodge against him, and for fear that in an exchange I might not obtain a better one.

"The Governor of Durango furnished me with letters to the Alcalde of Canales, and the Prefect of Tamazula; Mr. Stalknit had at that time despatched ten loads of silver for Mazatlan.

"While at Durango, the two brothers, Stalknits, invited me to a ride of two miles in the country, to visit their cotton factory. The buildings of their establishment were as commodious as any others I had seen of the kind in the Union, working 20,000 spindles, and their complement of looms. The yarns of the factory were all wove into fabrics, with the exception of thread for sewing purposes. The conductors of the manufacturing department were all New Englanders."

Mr. Gregg, in his interesting work on the American and Santa Fé trade, gives descriptive sketches of the trade south of that town, and of the mining districts and towns of Durango and Zacatecas, from which the following extracts are taken:

"The officers of the custom-house were already compromised by certain cogent arguments (bribes) to receive the proprietors of this caravan with striking marks of favour, and the *Señor Administrador de Rentas*, Zuloaga himself was expecting an *ancheta* of goods. Therefore, had they treated us with their wonted severity, the contrast would have been altogether too glaring.

"We arrived at Chihuahua on the first of October, after a trip of forty days, with waggons much more heavily laden than when we started from the United States. The whole distance from *Santa Fé* to *Chihuahua* is about 550 miles,—being reckoned 320 to *Paso del Norte*, and 230 from thence to Chihuahua. The road (natural) from *El Paso* south is mostly firm and beautiful, with the exception of the sand-hills before spoken of; and it is only rendered disagreeable by the scarcity and occasional ill-savour of the water. The route winds over an elevated plain among numerous detached ridges of low mountain—spurs, as it were, of the main Cordilleras, which lie at a consi-

derable distance to the westward. Most of these extensive intermediate plains, though in many places of fertile-looking soil, must remain wholly unavailable for agricultural purposes, on account of their natural aridity, and a total lack of water for irrigation.

"The trade to the south constitutes a very important branch of the commerce of the country, in which foreigners, as well as natives, are constantly embarking. It is customary for most of those who maintain mercantile establishments in Chihuahua, to procure assortments of Mexican fabrics from the manufactories of Leon, Aguascalientes, and other places of the same character in the more southern districts of the republic.

FAIRS.—"At certain seasons of the year, there are held regular *ferias*, at which the people assemble in great numbers, as well of sellers as of purchasers. There are some eight or ten of these annual fairs held in the republic, each of which usually lasts a week or more."

The only description of these fairs that we have is by Mr. Gregg, who says :

"I set out from Chihuahua with a party consisting of four men (including myself) and two empty waggons—not a very formidable escort to protect our persons as well as specie and bullion (the only transmissible currency of the country) against the bands of robbers which at all times infest that portion of our route that lay south of Durango. From Chihuahua to that city the road was rendered still more perilous by the constant hostilities of the Indians. On the 7th of March we arrived without accident at the town of Corro Gordo, the northernmost settlement in the department of Durango, and the following day we reached La Zarca, which is the principal village of one of the most extensive haciendas in the north. So immense is the amount of cattle on this estate, that, as it was rumoured, the proprietor once offered to sell the whole hacienda, stock, &c., for the consideration alone of fifty cents for each head of cattle found on the estate; but that no person has ever yet been able or willing to muster sufficient capital to take up the offer. This estate covers a territory of perhaps a hundred miles in length, which comprises several flourishing villages.

"In two days more we reached Rio Nazas, a beautiful little river that empties itself into Lake Cayman.* Rio Nazas has been celebrated for the growth of cotton, which, owing to the mildness of the climate is sometimes planted fresh only every three or four years. The light frosts of winter seldom destroy more than the upper portion of the stalk, so that the root is almost perennial. About twenty-five miles further we stopped at the mining village of La Noria, where we were obliged to purchase water for our mules. It is not unusual, also, for the proprietors of haciendas to demand remuneration for the pasture on the open plains consumed by the animals of travellers—a species of exaction which one never hears of in the north of Mexico.

"Our next stopping-place was Cuencamé, which may well be called the Village of Churches, for, although possessing a very small population, there are five or six edifices of this description. As I had business to transact at Durango, which is situated forty or fifty miles westward of the main southern road, I now pursued a direct route for that city, where I arrived on the 16th of March.

DURANGO "is one of the handsomest cities in the north, with a population of about 20,000. It is situated in a level plain, surrounded in every direction by low mountains. It presents two or three handsome squares, with many fine edifices and really splendid churches. The town is supplied with water for irrigating the gardens, and for many other ordinary purposes, by several open aqueducts, which lead through the streets, from a large spring, a mile or two distant; but as these are kept filthy by the offal that is thrown into them, the inhabitants who are able to buy it, procure most of their water for drinking and culinary purposes from the *aguadores*, who pack it, on asses, usually in large jars, from the spring.

"This is the first northern city in which there is to be found any evidence of that

* The numerous little lakes throughout the interior of Mexico, without outlet, yet into which rivers are continually flowing, present a phenomenon which seems quite singular to the inhabitants of our humid climates. But the wastage in the sand, and still greater by evaporation in those elevated dry regions, is such that there are no important rises in the lakes except during unusual freshets.—*Gregg*.

variety of tropical fruits for which Southern Mexico is so justly famed. Although it was rather out of season, yet the market actually teemed with all that is most rich and exquisite in this kind of produce. The *maguey*, from which is extracted the popular beverage called *pulque*,* is not only cultivated extensively in the fields, but grows wild every where upon the plains. This being the height of the pulque season, a hundred shanties might be seen loaded with jugs and goblets filled with this favorite liquor.

SCORPIOS.—“Durango is also celebrated as being the head-quarters, as it were, of the whole scorpion family. During the spring, especially, so much are the houses infested by these poisonous insects, that many people are obliged to have resort to a kind of mosquito-bar, in order to keep them out of their beds at night. As an expedient to deliver the city from this terrible pest a society has actually been formed, which pays a reward of a *cuartilla* (three cents) for every *alacran* (or scorpion) that is brought to them. Stimulated by the desire of gain, the idle boys of the city are always on the look out; so that, in the course of a year immense numbers of this public enemy are captured and slaughtered. The body of this insect is of the bulk of a medium spider, with a jointed tail one to two inches long, at the end of which is a sting whose wounds are so poisonous as often to prove fatal to children, and are very painful to adults.

“Although we were exceedingly well armed, yet so many fearful stories of robberies said to be committed almost daily on the southern roads reached our ears that, before leaving Durango I resolved to add to my ‘weapons of defence’ one of those peculiarly terrible dogs which are sometimes to be found in this country, and which are very serviceable to travellers situated as I was.

“On the 22nd of March we left Durango, and, after a few days’ march found ourselves once more in the *camino real* that led from Chihuahua to Zacatecas. As all travellers go armed, it is impossible to distinguish them from banditti;† so that the unsuspecting trader is very frequently set upon by the very man he had been consorting with in apparent good fellowship, and either murdered on the spot, or dragged from his horse with the lazo, and plundered of all that is valuable about him.

AGUASCALIENTES, in 22 deg. N. latitude and 102 deg. 15 min. W. longitude, “is beautifully situated in a level plain, and would appear to contain about twenty thousand inhabitants, who are principally engaged in the manufacture of *rebozos* and other textures mostly of cotton. As soon as I found myself sufficiently at leisure I visited the famous warm spring (*ojo caliente*) in the suburbs from which the city derives its euphonious name.

“It had been originally my intention to continue on to Leon, another manufacturing town some seventy or eighty miles from Aguascalientes; but, hearing that Santa Anna had just arrived there with a large army, on his way to Zacatecas to quell an insurrection, I felt very little curiosity to extend my rambles further. Having, therefore, made all my purchases in the shortest possible time, in a few days I was again in readiness to start for the north.

“That my mules might be in condition for the hard travel before me, it was necessary to have them shod: a precaution, however, which is seldom used in the north of Mexico, either with mules or horses. Owing a little to the peculiar breed, but more still, no doubt, to the dryness of the climate, Mexican animals have unusually hard hoofs. Many will

* Also, from the *Pulque* is distilled a spirituous liquor called *mezcal*. The *maguey* (*Agave Americana*) is besides much used for hedging. It here performs the double purpose of a cheap and substantial fence, and of being equally valuable for *pulque*. When no longer serviceable in these capacities, the pulpy stalk is converted, by roasting, into a pleasant item of food, while the fibrous blades, being suitably dressed, are still more useful. They are manufactured into ropes, bags, &c., which resemble those made of the common sea-grass, though the fibres are finer. There is one species (which does not produce pulque, however), whose fibres, known in that country as *pita*, are nearly as fine as dressed hemp, and are generally used for sewing shoes, saddlery, and similar purposes.—*Gregg*.

† Travellers on these public highways not only go “armed to the teeth,” but always carry their weapons exposed. Even my waggoners carried their guns and pistols swung upon the pommels of their saddles. At night, as we generally camped out, they were laid under our heads or close by our sides.—*Gregg*.

travel for weeks, and even months, over the firm* and often rocky roads of the interior, the pack-mules carrying their huge loads without any protection whatever to the feet, save that which nature has provided.

MINING DISTRICT OF JESUS MARIA IN NORTHERN MEXICO.—This mining district was visited by Mr. Gregg, who says, "I set out from Chihuahua on the 15th of October. My party consisted of but one American comrade with a Mexican muleteer, and three or four mules freighted with specie to be employed in the silver trade; a rather scanty convoy for a route subject to the inroads of both savages and robbers. For transportation, we generally pack our specie in sacks made of raw beef-hide, which shrinks upon drying, and thus presses the contents so closely as to prevent friction. A pair of these packages, usually containing between one and two thousand dollars each, constitutes an ordinary mule load on the mountain routes.

"The road in this direction leads through the roughest mountain passes; and, in some places, it winds so close along the borders of precipices, that by a single misstep an animal might be precipitated several hundred feet. Mules, however, are very sure-footed; and will often clamber amongst the most craggy cliffs with nearly as much security as the goat. I was shown the projecting edge of a rock over which the road had formerly passed. This shelf was perhaps thirty feet in length by only two or three in width. The road which leads into the town of Jesus-Maria from the west side of the mountain is also extremely perilous and steep, and seems almost to overhang the houses below. Heavily laden mules have sometimes slipped off the track, and tumbled headlong into the town. This place is even more pent up between ridges than Zacatecas: the valley is narrower and the mountains much higher; while, as is the case with that remarkable city, the houses are sometimes built in successive tiers, one above another; the *azoteas* of the lower ones forming the yard of those above.

"The first mine I visited consisted of an immense horizontal shaft cut several hundred feet into a hill-side, a short distance below the town of Jesus-Maria, in the Sierra Madre, (latitude 28 deg. N., longitude 107 deg. 10 min. W.,) upon which the proprietors had already sunk, in the brief space of one year, the enormous sum of one hundred and twenty thousand dollars! Such is often the fate of the speculative miner, whose vocation is closely allied to gaming, and equally precarious.

"The most important mine of Jesus-Maria at this time was one called Santa Juliana, which had been the means of alternately making and sinking several splendid fortunes. This mine had then reached a depth of between eight and nine hundred feet, and the operations were still tending downwards. The materials were drawn up by mule-power applied to a windlass: but as the rope attached to it only extended half-way down, another windlass had been erected at the distance of about four hundred feet from the mouth of the cavern, which was also worked by mules, and drew the ores, &c., from the bottom. On one occasion, as I was standing near the aperture of this great pit, watching the ascent of the windlass rope, expecting every moment the appearance of the large leathern bucket which they employ for drawing up the minerals as well as the rubbish and water,† from the bottom, what should greet my vision but a mule, puffing and writhing, firmly bound to a huge board constructed for the purpose, and looking about as demure upon the whole as a sheep under the shears.

"The ore which is obtained from these mines, if sufficiently rich to justify the operation, is transferred to the smelting-furnaces, where the pure metal is melted down and extracted from the virgin fossil. If, on the contrary, the ore is deemed of inferior quality, it is then submitted to the process of amalgamation. The *moliendas*, or crushing-mills (*arrastres*, as called at some mines), employed for the purpose of grinding the ores, are somewhat singular machines. A circular (or rather annular) cistern of some twenty or thirty feet in diameter is dug in the earth, and the sides as well as the bottom are lined

* Some of these table-plain highways, though of but a dry sandy and clayey soil, are as firm as a brick pavement. In some places, for miles, I have remarked that the nail-heads of my shod animals would hardly leave any visible impression.

† Water has sometimes accumulated so rapidly in this mine as to stop operations for weeks together.

with hewn stone of the hardest quality. Transversely through an upright post which turns upon its axis in the centre of the plan, passes a shaft of wood, at each end of which are attached by cords one or two grinding-stones with smooth flat surfaces, which are dragged (by mules fastened to the extremities of the shaft) slowly around upon the bottom of the cistern, into which the ore is thrown after being pounded into small pieces. It is here ground, with the addition of water, into an impalpable mortar, by the constant friction of the dragging stones against the sides and bottom of the cistern. A suitable quantity of quicksilver is perfectly mixed with the mortar; to which are added some muriates, sulphates, and other chemical substances, to facilitate the amalgamation. The compound is then piled up in small heaps, and not disturbed again until this process is supposed to be complete, when it is transferred to the washing-machine. Those I have observed are very simple, consisting of a kind of stone tub, into which a stream of water is made to flow constantly, so as to carry off all the lighter matter, which is kept stirred up by an upright studded with pegs, that revolves in the centre, while the amalgamated metals sink to the bottom. Most of the quicksilver is then pressed out, and the silver submitted to a burning process, by which the remaining portion of mercury is expelled.

"The silver which is taken from the furnace generally contains an intermixture of gold, averaging from ten to thirty per cent; but what is extracted by amalgamation is mostly separated in the washing. While in a liquid state, the gold, from its greater specific gravity, mostly settles to the bottom; yet it usually retains a considerable alloy of silver. The compound is distinguished by the name of *oroché*. The main portion of the silver generally retains too little gold to make it worth separating.

"Every species of silver is moulded into *barras*, or ingots, weighing from fifty to eighty pounds each, and usually worth between one and two thousand dollars. These are assayed by an authorised agent of the government and stamped with their weight and character, which enables the holder to calculate their value by a very simple rule. When the bullion is thus stamped, it constitutes a species of currency, which is much safer for remittances than coin. In case of robbery, the *barras* are easily identified, provided the robbers have not had time to mould them into some other form. For this reason, people of wealth frequently lay up their funds in ingots; and the cellars of some of the *rios* of the South are often found teeming with large quantities of them, presenting the appearance of a winter's supply of fuel.

"As the charge for parting the gold and silver at the Mexican mints is generally from one to two dollars, and coinage about fifty cents per pound, this assayed bullion yields a profit upon its current value of nearly ten per cent at the United States Mint; but, if unassayed, it generally produces an advance of about double that amount upon the usual cost at the mines. The exportation of bullion, however, is prohibited, except by special licence from the general government. Still, a large quantity is exported in this way, and considerable amounts smuggled out through some of the ports.

"A constant and often profitable business in the 'silver trade' is carried on at these mines. As the miners rarely fail being in need of ready money, they are generally obliged to sell their bullion for coin, and that often at a great sacrifice, so as to procure available means to prosecute their mining operations. To profit by this trade, as is already mentioned, was a principal object of my present visit. Having concluded my business transactions, and partially gratified my curiosity, I returned to Chihuahua.

"It is usual for each trader, upon his arrival in Chihuahua to engage a store-room, and to open and exhibit his goods, as well for the purpose of disposing of them at wholesale as retail. His most profitable custom is that of the petty country merchants from the surrounding villages. Some traders, it is true, continue in the retail business for a season or more, yet the greater portion are transient dealers, selling off at wholesale as soon as a fair bargain is offered.

Mode of SELLING Goods.—"The usual mode of selling in Chihuahua is by the lot. Cottons, as calicoes and other prints, bleached, brown, and blue domestics, both plain and twilled, stripes, checks, &c., are rated at two or three *reales** per *vara*, without the least

* 12 *granos* make 1 *real*; 8 *reales*, 1 *peso*, or dollar. These are the divisions used in computation, but instead of *granos*, the copper coins of Chihuahua and many other places, are the *clavo* or

reference to quality or cost, and the 'general assortment' at 60 to 100 per cent upon the bills of cost, according to the demand. The *varage* is usually estimated by adding eight per cent to the yardage, but the *vara* being thirty-three inches (nearly), the actual difference is more than nine. In these sales, cloths—indeed all measurable goods, except ribands and the like, sometimes enter at the *varage* rate. Every thing was sometimes rated by the *vara*—not only all textures, but even hats, cutlery, trinkets, and so on! In such cases, very singular disputes would frequently arise as to the mode of measuring some particular articles: for instance, whether pieces of riband should be measured in bulk, or unrolled, and yard by yard; looking-glasses, cross or lengthwise; pocket-knives, shut or open; writing-paper, in the ream, in the quire, or by the single sheet; and then, whether the longer or shorter way of the paper; and many others.

"Before the end of October, 1839, I had an opportunity of selling out my stock of goods to a couple of English merchants, which relieved me from the delays, to say nothing of the inconveniences attending a retail trade: such, for instance, as the accumulation of copper coin, which forms almost the exclusive currency in petty dealings. Some thousands of dollars' worth are frequently accumulated upon the hands of the merchant in this way, and as the copper of one department is worthless in another, except for its intrinsic value, which is seldom more than ten per cent of the nominal value, the holders are subjected to a great deal of trouble and annoyance.

CITY OF CHIHUAHUA.—"This city, when compared with Santa Fé and all the towns of the north, Chihuahua might indeed be pronounced a magnificent place; but, compared with the nobler cities of *tierra afuera*, it sinks into insignificance. According to Captain Pike, the city of Chihuahua was founded in 1691. The ground-plan is much more regular than that of Santa Fé, while a much greater degree of elegance and classic taste has been exhibited in the style of the architecture of many buildings; for though the bodies be of *adobe*, all the best houses are cornered with hewn stone, and the doors and windows are framed in the same. The streets, however, remain nearly in the same state as nature formed them, with the exception of a few roughly-paved side-walks. Although situated about a hundred miles east of the main chain of the Mexican Cordilleras, Chihuahua is surrounded on every side by detached ridges of mountains, but none of them of any great magnitude. The elevation of the city above the ocean is between four and five thousand feet; its latitude is 28 deg. 36 min.; and its entire population numbers about ten thousand souls.

"The most splendid edifice in Chihuahua is the principal church, which is said to equal in architectural grandeur any thing of the sort in the republic.

"Having closed all my affairs in Chihuahua and completed my preparations for departing, I took my leave of that city for the north on the 31st of October, 1839. I was accompanied by a caravan consisting of twenty-two waggons (all of which save one belonged to me), and forty odd men, armed to the teeth, and prepared for any emergency we might be destined to encounter: a precaution altogether necessary, in view of the hordes of hostile savages which at all times infested the route before us."—*Gregg's Commerce of the Prairies.*

NEW MEXICO.

THIS country, the most recent account of which is that by Mr. Gregg, is *jola* ($\frac{1}{8}$ real) and the *currilla* ($\frac{1}{4}$ real). The silver coins are the *medio* (6 $\frac{1}{4}$ cents), the *real* (12 $\frac{1}{4}$ cents), the *peseta* (2 reales), the *toston*, or half dollar, and the *peso* or dollar. The gold coins are the *doblon* or *onza* (doubloon), with the same subdivisions as the silver dollar, which are also precisely of the weight. The par value of the doubloon is sixteen dollars; but as there is no kind of paper currency, gold, as the most convenient remittance, usually commands a high premium—sometimes so high, indeed, that the doubloon is valued in the north at from eighteen to twenty dollars.

bounded north and east by the territories of the United States, south by that of Texas and Chihuahua, and west by Upper California, it is surrounded by chains of mountains and extensive prairies, extending to a distance of 500 miles or more, except in the direction of Chihuahua, from which its settlements are separated by an uninhabited desert for nearly two hundred miles—and without the means of water communication with any other part of the world. It is entered from Northern Mexico or Chihuahua, by El Paso del Norte.

The whole territory, including extensive bleak regions with which it is intersected, comprises about 200,000 square milos. Mr. Gregg is of opinion that, "To which soever sovereignty that section of land may eventually belong, that portion of it at least, which is inhabited, should remain united. Any attempt on the part of Texas to make the Rio del Norte the line of demarcation would greatly retard her ultimate acquisition of the territory, as it would leave at least one-third of the population accustomed to the same rule, and bound by ties of consanguinity and affinity of customs wholly at the mercy of the contiguous hordes of savages, that inhabit the Cordilleras on the west of them. This great chain of mountains which reaches the borders of the Rio del Norte, not far above El Paso would, in my opinion, form the most natural boundary between the two countries, from thence northward."

RIVERS.—"There is not," it is stated by Mr. Gregg, "a single navigable stream to be found in New Mexico. The famous Rio del Norte is so shallow, for the most part of the year, that Indian canoes can scarcely float in it. Its navigation is also obstructed by frequent shoals and rippling sections for a distance of more than a thousand miles below Santa Fé. Opposite Taos, especially, for an uninterrupted distance of nearly fifteen miles, it runs pent up in a deep *canon* (ravine), through which it rushes in rapid torrents. This frightful chasm is absolutely impassable; and, viewed from the top, the scene is imposing in the extreme. None but the boldest hearts and firmest nerves can venture to its brink, and look down its almost perpendicular precipice, over projecting crags and deep crevices, upon the foaming current of the river, which, in some places, appears like a small rippling brook; while in others it winds its serpentine course silently but majestically along, through a narrow little valley; with immense plains bordering and expanding in every direction, yet so smooth and level that the course of the river is not perceived till within a few yards of the verge. I have beheld this *canon* from the summit of a mountain, over which the road passes some twenty miles below Taos, from whence it looks like the mere fissure of an insignificant ravine."

Baron Humboldt describes an extraordinary event as having occurred in 1752, of which he says the inhabitants of Paso del Norte still preserved the recollection in his day. "The whole bed of the river," he says, "became dry all of a sudden, for more than thirty leagues above and twenty leagues below the Paso: and the water of the river precipitated itself into a newly-formed chasm, and only made its reappearance near the *Presidio* of San Eleazario..... At length, after the lapse of several weeks, the water resumed its course, no doubt because the chasm and the subterraneous conductors had filled up." This savours of the marvellous, as not the least knowledge of these facts appears to have been handed down to the present generation. During very great droughts, however, this river is said to have entirely disappeared in the sand, in some places, between San *Eleazario* and the *Presidio* del Norte.

"Notwithstanding the numerous tributary streams which would be supposed to pour their contents into the Rio del Norte, very few reach their destination before they are completely exhausted. Rio Puerco, so called from the extreme muddiness of its waters,

would seem to form an exception to this rule. Yet this also, although at least a hundred miles in length, is dry at the mouth for a portion of the year. The creek of Santa Fé itself, though a bold and dashing rivulet in the immediate vicinity of the mountains, sinks into insignificance, and is frequently lost altogether before it reaches the main river. Pechos and Conchos, its most important inlets, would scarcely be entitled to a passing remark, but for the geographical error of Baron Humboldt, who set down the former as the head branch of the 'Red River of Natchitoches.' These streams may be considered the first constant-flowing inlets which the Rio del Norte receives from Santa Fé south—say for the distance of five hundred miles! It is then no wonder that this 'Great River of the North' decreases in volume of water as it descends. In fact, above the region of tide-water, it is almost everywhere fordable during most of the year, being seldom over knee-deep, except at the time of freshets. Its banks are generally very low, often less than ten feet above low-water mark: and yet, owing to the disproportioned width of the channel (which is generally three or four hundred yards), it is not subject to inundations. Its only important rises are those of the annual freshets, occasioned by the melting of the snow in the mountains.

"This river, is only known to the inhabitants of Northern Mexico as *Rio del Norte*, or North River, because it descends from that direction: yet in its passage southward, it is in some places called *Rio Grande*, on account of its extent; but the name of *Rio Bravo* (Bold or Rapid River), so often given to it on maps, is seldom if ever heard among the people. Though its entire length, following its meanders from its source in the Rocky Mountains to the Gulf of Mexico, must be considerably over two thousand miles, is hardly navigable to the extent of two hundred miles above its mouth.

"SANTA FÉ, the capital of New Mexico, is the only town of any importance in the province. It is sometimes written *Santa Fé de San Francisco* (Holy Faith of St. Francis), the patron saint. It occupies the site of an ancient Pueblo or Indian village. Its situation in latitude 35 deg. 41 min. N., and longitude 106 deg. W., is twelve or fifteen miles east of the Rio del Norte, at the western base of a snow-clad mountain, upon a beautiful stream of small mill-power size, which ripples down in icy cascades, and joins the river some twenty miles to the south-westward. The population of the city itself but little exceeds," says Mr. Gregg, "3000; yet, including several surrounding villages which are embraced in its corporate jurisdiction, it amounts to nearly 6000 souls.*

"The town is very irregularly laid out, and most of the streets are little better than common highways traversing scattered settlements which are interspersed with corn-fields nearly sufficient to supply the inhabitants with grain. The only attempt at any thing like architectural compactness and precision consists in four tiers of buildings, whose fronts are shaded with a fringe of *portales* or *corredores* of the rudest possible description. They stand around the public square, and comprise the *Palacio*, or governor's house, the custom-house, the barracks (with which is connected the fearful *Calabozo*), the *Casa Consistorial* of the *Alcaldes*, the *Capilla de los Soldados*, or military chapel, besides several private residences, as well as most of the shops of the American traders.

POPULATION.—"The population of New Mexico is almost exclusively confined to towns and villages, the suburbs of which are generally farms. Even most of the *ranchos* and *haciendas* have grown into villages,—a result almost indispensable for protection against the marauding savages of the surrounding wilderness. The principal of these settlements are located in the valley of the Rio del Norte, extending from nearly one hundred miles north to about one hundred and forty south of Santa Fé.† The most

* Its elevation above the ocean is nearly 7000 feet; that of the valley of Taos is no doubt over a mile and a half. The highest peak of the mountain (which is covered with perennial snow) some ten miles to the north-east of the capital, is reckoned about 5000 feet above the town. Those from Taos northward rise still to a much greater elevation.

† The settlements *up the river* from the capital are collectively known as *Rio-Arriba*, and those *down the river* as *Rio-Abajo*. The latter comprise over a third of the population, and the principal wealth of New Mexico.

important of these, next to the capital, is *El Valle de Taos*,* so called in honour of the *Taos* tribe of Indians, a remnant of whom still forms a *pueblo* in the north of the valley. No part of New Mexico equals this valley in amenity of soil, richness of produce and beauty of appearance. Whatever is thrown into its prolific bosom, which the early frosts of autumn will permit to ripen, grows to a wonderful degree of perfection.

"Wheat especially has been produced of a superlative quality, and in such abundance, that, as is asserted, the crops have often yielded over a hundred fold. I would not have it understood, however, that this is a fair sample of New Mexican soil; for, in point of fact, though many of the bottoms are of very fertile character, the uplands must chiefly remain unproductive; owing, in part, to the sterility of the soil, but as much, no doubt, to want of irrigation; hence nearly all the farms and settlements are located in those valleys which may be watered by some constant-flowing stream.†

"The first settler of the charming valley of Taos, since the country was reconquered by the Indians, is said to have been a Spaniard named Pando, about the middle of the eighteenth century. This pioneer of the north, finding himself greatly exposed to the depredations of the Comanches, succeeded in gaining the friendship of that tribe, by promising his infant daughter, then a beautiful child, to one of their chiefs in marriage. But the unwilling maiden having subsequently refused to ratify the contract, the settlement was immediately attacked by the savages, and all were slain except the betrothed damsel who was led into captivity. After living some years with the Comanches on the great prairies, she was bartered away to the Pawnees, of whom she was eventually purchased by a Frenchman of St. Louis. Some very respectable families in that city are descended from her; and there are many people yet living who remember with what affecting pathos the old lady was wont to tell her tale of woe. She died but a few years ago.

CLIMATE OF NEW MEXICO.—"Salubrity of climate is decidedly the most interesting feature in the character of New Mexico. Nowhere—not even under the much-boasted Sicilian skies—can a purer or a more wholesome atmosphere be found. Bilious diseases—the great scourge of the valley of the Mississippi—are here almost unknown. Apart from a fatal epidemic fever of a typhoid character, that ravaged the whole province from 1837 to 1839, and which, added to the smallpox that followed in 1840, carried off nearly ten per cent of the population, New Mexico has experienced very little disease of a febrile character; so that as great a degree of longevity is attained there, perhaps, as in any other portion of the habitable world. Persons withered almost to mummies are to be encountered occasionally, whose extraordinary age is only to be inferred from their recollection of certain notable events which have taken place in times far remote.

"A sultry day, from Santa Fé north, is of very rare occurrence. The summer nights are usually so cool and pleasant that a pair of blankets constitutes an article of comfort seldom dispensed with. The winters are long, but not so subject to sudden changes as in damper climates; the general range of the thermometer, throughout the year, being from 10 deg. to 75 deg. above zero, of Fahrenheit. Baron Humboldt was led into as great an error with respect to the climate of New Mexico as to the rivers; for he remarks that near Santa Fé and a little further north, 'the Rio del Norte is sometimes covered for a succession of several years, with ice thick enough to admit the passage of horses and carriages:' a circumstance which would be scarcely less astounding to the New Mexicans, than would the occurrence of a similar event in the harbour of New York be to her citizens.

"The great elevation of all the plains about the Rocky Mountains, is, perhaps, the principal cause of the extraordinary dryness of the atmosphere. There is but little rain throughout the year, except from July to October—known as the *rainy season*; and as the Missouri traders usually arrive about its commencement, the coincidence has given

* "The Valley of Taos," there being no town of this name. It includes several villages and other settlements, the largest of which are Fernandez and Los Ranchos, four or five miles apart.

† From the generally barren and desolate appearance which the uplands of New Mexico present, some exceptions have possessed an extraordinary degree of fertility; as is demonstrated by the fact that many of the fields on the undulating lands in the suburbs of Santa Fé, have no doubt been in constant cultivation over two hundred years, and yet produce tolerable crops, without having been once renovated by manure.—*Gregg*.

rise to a superstition, quite prevalent among the vulgar, that the Americans bring the rain with them. During seasons of drought, especially, they look for the arrival of the annual caravans as the harbinger of speedy relief.

POPULATION.—"There has never been an accurate census taken of the population of New Mexico. Of the one attempted in 1832, the Secretary of State at Santa Fé, speaks in the following terms:—'At present (1841) we may estimate the Spanish or white population at about 60,000 souls or more, being what remains of 72,000, which the census taken seven or eight years ago showed there then existed in New Mexico.' He supposes that this great diminution resulted from the ravages of the frightful diseases already alluded to. The decrease of population from these causes, however, is greatly overrated. The discrepancy must find its explanation in the inaccuracy of the census referred to.

"If we exclude the unsubjugated savages, the entire population of New Mexico, including the Pueblo Indians, cannot be set down, according to the best estimates I have been able to obtain, at more than 70,000 souls. These may be divided as follows:—White creoles, say 1000; Mestizos, or mixed creoles, 59,000; and Pueblos, 10,000. Of naturalised citizens, the number is inconsiderable—scarcely twenty; and if we except transient traders, there are not over double as many alien residents. There are no negroes in New Mexico, and consequently neither mulattoes nor *zambos*. In 1803, Baron Humboldt set down the population of this province at 40,200, so that according to this the increase for forty years has barely exceeded one per cent per annum.

AGRICULTURE OF NEW MEXICO.—"Agriculture, like almost every thing else in New Mexico, is in a very primitive and unimproved state. A great portion of the peasantry cultivate with the hoe alone—their ploughs (when they have any) being only used for mellow grounds, as they are too rudely constructed to be fit for any other service. Those I have seen in use are mostly fashioned in this manner:—a section of a trunk of a tree, eight or ten inches in diameter, is cut about two feet long, with a small branch left projecting upwards, of convenient length for a handle. With this a beam is connected to which oxen are yoked. The block, with its fore end sloped downwards to a point, runs flat, and opens a furrow similar to that of the common shovel plough. What is equally worthy of remark is, that these ploughs are often made exclusively of wood, without one particle of iron, or even a nail to increase their durability.

"The *labores* and *milpas* (cultivated fields) are often, indeed most usually, without any enclosure. The owners of cattle are obliged to keep herdsmen constantly with them, else graze them at a considerable distance from the farms; for if any trespass is committed upon the fields by stock, the proprietor of the latter is bound to pay damages: therefore, instead of the cultivator's having to guard his crop from the cattle as with us, the owners of these are bound to guard them from the crops. Only a chance farm is seen fenced with poles scattered along on forks, or a loose hedge of brush. Mud-fences, or walls of very large *adobes*, are also occasionally to be met with.

"The necessity of irrigation has confined, and no doubt will continue to confine agriculture principally to the valleys of the constant-flowing streams. In some places the crops are frequently cut short by the drying up of the streams. Where water is abundant, however, art has so far superseded the offices of nature in watering the farms, that it is almost a question whether the interference of nature in the matter would not be a disadvantage. On the one hand, the husbandman need not have his grounds overflowed if he administers the water himself, much less need he permit them to suffer from drought. He is, therefore, more sure of his crop than if it were subject to the caprices of the weather in more favoured agricultural regions.

"One *acequia madre* (mother ditch) suffices generally to convey water for the irrigation of an entire valley, or, at least, for all the fields of one town or settlement. This is made and kept in repair by the public, under the supervision of the alcaldes; labourers being allotted to work upon it as with us upon our county roads. The size of this principal ditch is, of course, proportioned to the quantity of land to be watered. It is conveyed over the highest part of the valley, which, on these mountain streams, is, for the most part, next to the hills. From this, each proprietor of a farm runs a minor ditch, in like manner, over the most elevated part of his field. Where there is not a superabundance of water, which is often the case on the smaller streams, each farmer has his day, or portion of a day allotted to him for irrigation; and at no other time is he permitted to

extract water from the *acequia madre*. Then the cultivator, after letting the water into his minor ditch, dams this, first at one point and then at another, so as to overflow a section at a time, and with his hoe, depressing eminences and filling sinks, he causes the water to spread regularly over the surface. Though the operation would seem tedious, an expert irrigator will water, in one day, his five or six-acre field, if level, and every thing well arranged; yet, on uneven ground, he will hardly be able to get over half of that amount.*

" All the *acequias* for the valley of the Rio del Norte are conveyed from the main stream, except where a tributary of more convenient water happens to join it. As the banks of the river are very low, and the descent considerable, the water is soon brought upon the surface by a horizontal ditch along an inclined bank, commencing at a convenient point of constant-flowing water—generally without dam, except sometimes a wing of stones to turn the current into the canal.

Food.—" The staple productions of the country are emphatically Indian corn and wheat. The former grain is most extensively employed for making *tortillas*—an article of food greatly in demand among the people, the use of which has been transmitted to them by the aborigines. The corn is boiled in water with a little lime: and when it has been sufficiently softened, so as to strip it of its skin, it is ground into paste upon the *metate*,† and formed into a thin cake. This is afterwards spread on a small sheet of iron or copper, called *comal* (*comalli*, by the Indians), and placed over the fire, where in less than three minutes, it is baked and ready for use. The thinness of the tortilla is always a great test of skill in the maker, and much rivalry ensues in the art of preparation. The office of making tortillas has, from the earliest times, pertained chiefly to the women, who appear to be better adapted to this employ than the other sex, both as regards skill and dexterity, in preparing this particular food for the table. I perfectly agree with the historian Clavigero, however, in the opinion that ' although this species of corn-bread may be very wholesome and substantial, and well-flavoured when newly made, it is unpleasant when cold.'

" A sort of thin mush called *atole*, made of Indian meal, is another article of diet, the preparation of which is from the aborigines; and such is its nationality, that in the north it is frequently called *el café de los Mexicanos* (the coffee of the Mexicans). How general soever the use of coffee among Americans may appear, that of *atole* is still more so among the lower classes of Mexicans. They virtually ' breakfast, dine and sup' upon it. Of this, indeed, with *frijoles* and *chilé* (beans and red pepper), consist their principal food. The extravagant use of red pepper among the Mexicans has become truly proverbial. It enters into nearly every dish at every meal, and often so predominates as entirely to conceal the character of the viands. It is likewise ground into a sauce, and thus used even more abundantly than butter. *Chilé verde* (green pepper), not as a mere condiment, but as a salad, served up in different ways, is reckoned by them one of the greatest luxuries. But however much we may be disposed to question their taste in this particular, no one can hesitate to do homage to their incomparable chocolate, in the preparation of which the Mexicans surely excel every other people.

" Besides these, many other articles of diet peculiar to the country, and adopted from the aborigines, are still in use—often of rich and exquisite flavour, and though usually not much relished at first by strangers, they are for the most part highly esteemed after a little use.

" The *rancheros*, and all the humbler classes of people, very seldom use any table for their meals, an inconvenience which is very little felt, as the dishes are generally served out from the kitchen in courses of a single plate to each guest, who usually takes it upon his knees. Knives and forks are equally dispensed with, the viands being mostly

* There is no land measure here correspondent to our acres. Husbandmen rate their fields by the amount of wheat necessary to sow them; and thus speak of a *fanega* of land—*fanega* being a measure of about two bushels—meaning an extent which two bushels of wheat will suffice to sow. Tracts are usually sold by the number of *leguas* (leagues), or *varas* front of irrigable lands; for those back from the streams are considered worthless. The *vara* is very nearly thirty-three English inches, 5000 of which constitute the Mexican league—under two miles and two-thirds.

† From the Indian word *metatl*, a hollowed oblong stone, used as a grinding machine.

hashed or boiled so very soft as to be eaten with a spoon. This is frequently supplied by the *tortilla*, a piece of which is ingeniously doubled between the fingers so as to assist in the disposal of any thing, be it ever so rare or liquid.

"The very singular custom of abstaining from all sorts of beverage during meals, has frequently afforded me a great deal of amusement. Although a large cup of water is set before each guest, it is not customary to drink it off till the repast is finished. Should any one take it up in his hand while in the act of eating, the host is apt to cry out, 'Hold, hold ! there is yet more to come.'

"I have never been able to ascertain definitely the meaning of this peculiarity ; but from the strictness with which it is observed, it is natural to suppose, that the use of any kind of drink whilst eating, is held extremely unwholesome.* The New Mexicans use but little wine at meals, and that exclusively of the produce of the Pasco del Norte.

VARIOUS PRODUCTIONS.—"But to return to the productions of the soil. *Cotton* is cultivated to no extent, although it has always been considered as indigenous to the country ; while the ancient manufactures of the aborigines prove it to have been especially so in this province. *Flax* is entirely neglected, and yet a plant resembling in every respect that of the *linum usitatissimum*, is to be found in great abundance in many of the mountain valleys. The potato (*la papa*), although not cultivated in this country till very lately, is unquestionably an indigenous plant, being still found in a state of nature in many of the mountain valleys—though of small size, seldom larger than filberts : whence it appears that this luxury had not its exclusive origin in South America, as is the current opinion of the present day. Universal as the use of tobacco is among these people, there is very little of it grown, and that chiefly of a light and weak species, called by the natives *punche*, which is also indigenous, and still to be met with growing wild in some places. What has in a great measure contributed to discourage people from attending to the cultivation of the tobacco plant, is the monopoly of this *indispensable* by the federal government; for although the tobacco laws are not enforced in New Mexico (there being no *Estanquillo* or public store-house), yet the people cannot carry it anywhere else in the republic for sale, without risk of its being immediately confiscated. A still more powerful cause operating against this, as well as every other branch of agriculture in New Mexico, is the utter want of navigable streams, as a cheap and convenient means of transportation to distant markets.

FRUITS.—"Famous as the republic of Mexico has been for the quality and variety of its fruits, this province, considering its latitude, is most singularly destitute in this respect. A few orchards of apples, peaches, and apricots, are occasionally met with, but even these are of very inferior quality, being only esteemed in the absence of something better. A few small vineyards are also to be found in the valley of the Rio del Norte, but the grape does not thrive as at El Paso. The mode of cultivating the grape in these parts is somewhat peculiar, and might, I have no doubt, be practised to great advantage in other countries. No scaffold or support of any kind is erected for the vines, which are kept pruned so as to form a sort of shrubbery. Every fall of the year these are completely covered with earth, which protects them during the winter. Upon the opening of spring the dirt is scraped away, and the vines pruned again. This being repeated from year to year, the shrubs soon acquire sufficient strength to support the heavy crops of improved and superiorly-flavoured grapes which they finally produce.

"Indigenous wild fruits are not quite so scarce ; a clear evidence that the lack of cultivated fruit is not so much the fault of nature, as the result of indolence and neglect on the part of the people. The prickly pear is found in greatest abundance, and of several varieties : and though neither very wholesome nor savory, it is nevertheless frequently eaten.

"There is but little timber in New Mexico, except in the mountains and along the water-courses ; the table-plains and valleys are generally all open prairie. The forest growths, moreover, of all the north of Mexico, present quite a limited variety of timber, among which the common pitch-pine mostly predominates. The tree which appears to

* Females rarely ever eat with the males—at least in the presence of strangers—but usually take their food in the kitchen by themselves.

be most peculiar to the country, is a kind of scrub pine, called *pinon*, which grows generally to the height of twenty or thirty feet, with leaves ever-green and pine-like, but scarcely an inch long. From the surface of this tree exudes a species of turpentine, resembling that of the pitch-pine, but perhaps less resinous. The wood is white and firm, and much used for fuel. The most remarkable appendage of this tree is the fruit it bears, which is also known by the same name. This is a little nut about the size of a kidney-bean, with a rich oily kernel in a thin shell, enclosed in a chestnut-like bur. It is of a pleasant flavour and much eaten by the natives, and considerable quantities are exported annually to the southern cities. It is sometimes used for the manufacture of a certain kind of oil, said to be very good for lamps.

"The *mezquite* tree, vulgarly called *muskeet* in Texas, where it has attained some celebrity, grows in some of the fertile valleys of Chihuahua to the height of thirty and forty feet, with a trunk of one to two feet in diameter. The wood makes excellent fuel, but it is seldom used for other purposes, as it is crooked, knotty, and very coarse and brittle, more resembling the honey-locust (of which it might be considered a scrubby species) than the mahogany, as some people have asserted. The fruit is but a diminutive honey-locust in appearance and flavour, of the size and shape of a flattened bean-pod, with the seeds disposed in like manner. This pod, which, like that of the honey-locust, encloses a glutinous substance, the Apaches and other tribes of Indians grind into flour to make their favourite *pinole*. The mezquite seems undoubtedly of the *Acacia Arabica* species; as some physicians who have examined the gum which exudes from the tree, pronounce it genuine Arabic.

"On the water-courses there is little timber to be found except cotton-wood, scantily scattered along their banks. Those of the Rio del Norte are now nearly bare throughout the whole range of the settlements, and the inhabitants are forced to resort to the distant mountains for most of their fuel. But nowhere, even beyond the settlements, are there to be seen such dense cotton-wood bottoms as those of the Mississippi valley. Besides the common cotton-wood there is another to be found upon the mountain streams of New Mexico, which has been called willow-leaf or bitter cotton-wood (*populus angustifolia?*) and has been reckoned by some a species of cinchona, yet for no other reason perhaps than that the bark possesses efficacious tonic qualities. Attached to the seeds of this tree is also a cotton similar to that of the sweet cotton-wood, or *populus angulata*.

"Among the wild productions of New Mexico is the *palmina*—a species of palmetto which might be termed the *soap-plant*—whose roots, as well as those of another species known as *palma* (or palm), when bruised, form a saponaceous pulp called *amole*, much used by the natives for washing clothes, and is said to be even superior to soap for scouring woollens.

PASTURES.—"Most of the high table-plains afford the finest grazing in the world, while, for want of water, they are utterly useless for most other purposes. That scanty moisture which suffices to bring forth the natural vegetation is insufficient for agricultural productions without the aid of irrigation. The high prairies of all Northern Mexico differ greatly from those of our border in the general character of their vegetation. They are remarkably destitute of the gay flowering plants for which the former are so celebrated, being mostly clothed with different species of a highly nutritious grass called *grama*, which is of a very short and curly quality. The highlands, upon which alone this sort of grass is produced being seldom verdant till after the rainy season sets in, the *grama* is only in perfection from August to October. But being rarely nipt by the frost until after the rains are over, it cures upon the ground and remains excellent hay—equal if not superior to that which is cut and stacked from our western prairies. Although the winters are rigorous, the feeding of stock is almost entirely unknown in New Mexico; nevertheless, the extensive herds of the country, not only of cattle and sheep, but of mules and horses, generally maintain themselves in excellent condition upon the dry pasturage alone through the cold season, and until the rains start up the green grass again the following summer."

The following are sketches of the parts of Mexico through which Mr. Gilliam travelled towards California, taken from his travels :

" My disagreeable journey (after leaving Durango) was continued the whole day

until my arrival at Chinacates, a rancho belonging to the estate of the Conde of Guatamepé. I dismounted at the house of the administrador before sunset. The governor was from home, but his wife came to the door and invited me in, which I did, and to my great astonishment, after I had become seated on the bench behind the long table, she took from a box a six-barrelled pistol, the only one that I had seen in the country, besides my own, and walked across the floor. I drew from my belt my pair of similar weapons and laid them upon the table, so that she might behold also that I had twelve shots, which had a desirable effect; for she appeared no sooner to discover them than she laid aside her own. The woman, I knew, did not intend hostility, but as that part of the country was very much infested with marauding land-pirates, she had ever been accustomed to be prepared to meet the worst. However, the husband soon arrived, and I fared well. My ride, the next day, was mostly upon the ridge of a mountain, which would, at times, bring me in view of the great valley of Gualamepé.

COTTON FACTORY.—“The attention of an enterprising Mexican company has, at that place, been directed to the manufacturing of cotton, and I was credibly informed by the superintendent of the factory, the company had borrowed their capital, and were enabled to make a handsome profit, *paying thirty-seven and a half per cent* upon the loan.

“Thus it can easily be perceived how dearly the Mexicans have to pay for cotton fabrics—so much for protection and home markets! The New Englander related to me what the swindler would call a smart, but to others a disgraceful account of a Mexican gentleman of Saltila, who having determined to go into the cotton manufacturing business, visited the factories of the United States for the purpose of securing perfect machinery. Upon his arrival he made, through a merchant, as his broker, a purchase of a cotton factory machine, at the cost of twenty thousand dollars, and had it shipped to his home. He also engaged an American artisan to go to Saltila and put it together. But all having arrived, upon examination it was discovered that no two wheels of the whole fabrication belonged to one another, being all mismatched, some too large and others too small, like the cannon balls that were too great for their guns, not a wheel could be turned, nor a shot fired. Thus, while the Mexican character falls short of correctness, it is nevertheless taken *advantage of sometimes*. Still it is to be hoped that the twenty thousand has never done the swindler any good.

“The Mexicans are very ingenious and apt artisans, acquiring with much celerity the skill of any of the mechanical branches. They never serve the long apprenticeships that are so common in the Union and in Europe; but having worked at a trade some one or two years, they think themselves sufficiently proficient to carry it on; and thus quit their tutor and set up for themselves.”

Mr. Gilliam then proceeded onwards over a rough country of mountains, rocks, cataracts, glens, and forests, until he ascends a height which commanded a view of the Pacific, and then descended to the mining town of Caneles, of which he says:—

“The climate of Caneles is spring and summer. Vegetables and fruits which abound in any other latitudes, are plentifully cultivated there. The trees are perpetually green; for, as fast as the leaves fade and fall, others are fresh expanding; added to which the golden harvests of the orange-tree are ever beautiful to the eye and tempting to the taste. The streets are necessarily narrow. To the inhabitants this is no inconvenience, for a wheeled vehicle of any kind has never been seen in the town; indeed, it would be impossible for one to ascend the mountain at any point.

“The mountains of Caneles have ever been celebrated, from the early discovery of the country, for abounding in silver, but from the poverty of the ore, the mines have never been extensively worked. But what has rendered the place famous as a mineral locality is, that veins of quicksilver have been found there. These have never been worked successfully. I learned that the people were much flattered with hopes, from the fact that an English company had but recently commenced opening a mercury mine, under the management of Mr. John Buchan, an Englishman.

"I was shown some specimens of quicksilver ore, of which there were two kinds. The liquid metal was contained in a soft red stone. In the first kind the mineral was not perceptible in the rock, which was only ascertained to be possessed of a foreign substance by its weight. The second and last degree of specimens differed from the first only by the mineral protruding out of the stone in small detached particles, the only contrast being, that the one was richer in mercury than the other."

"Quicksilver is never found but in secondary formations. The ore is pulverised into an impalpable powder, and the mineral is obtained by washing the offal from the silver. The inhabitants of the mines of Caneles are most grievously affected with the loathsome disease bronchocele, or goitre."

Of the difficulty of travelling towards California, he observes,—

"There were times when points of rocks or earth, sometimes steep, and at others low, had to be passed. Then the traveller would have to encounter the cat's-paw, or some other briery growth, which would tear his clothes and flesh; for all the vegetable kingdom in Mexico is thorny. Indeed the idea often strikes one, that all nature there is at war—the birds, the beasts, the creeping insects and reptiles, as well as the vegetation, are all armed for formidable aggression and defence; and yet, above every other consideration, man, who should be lord and subduer of uncultivated nature, is the bane over all, for he excels in his unkind and hostile deeds. The traveller has to spend the night at some narrow nook that may promise scanty picking for his animals, and safety for himself. He does not proceed more than half a day down the river before he perceives that the mountain-sides, which will admit of growth, are covered with forests of log-wood.

"The town of Topic is a rich *mineral*, situated upon a high mountain, fifteen miles north of Caneles. It is a place of great antiquity, and has three times been destroyed by the Indians; to this day, bars of silver, that were buried under its ruins, are found; while silver bullets are ploughed up in the fields. Since I have mentioned the subject of ploughing, I will remark, that I made inquiries as to the mode of cultivating the land in the cold regions of Madre Montre, and was informed, that there lived in those mountains some Indians who have not been civilised, who are in the habit of planting their corn to a depth beyond the influence of the cold. Sometimes, I was told, they were known to have planted the grain as low as two feet under the earth, and if it should germinate and sprout to the surface, before the season of frost has passed, and be nipped down, the warm earth beneath would nourish the roots, and cause them to again grow up to perfection. Thus while the roots of corn are in a warm region, the stalk and fruit are nourished in a colder clime."

Travelling down along a river from Topic, for three days among rocks and water, and enclosed between mountains, he at length arrived in a country, of which he says:—

"The forests, a perfect medley in every direction, by their growth being so indiscriminately mixed, that the whole woods were thickly matted, and almost impenetrable, save by the paths of ancient usage. The birds, too, of many descriptions, strange to me, were merrily singing—the flocks of paroquets of many species, drowning, by their wild and frantic screams, the melodies of the other portion of the feathered tribe. There were some birds that particularly attracted my attention—the chechalaca, or pheasant; to me it resembled more the guinea-fowl than any other bird I was acquainted with, being symmetrically and beautifully proportioned—its plumage was dark with slight variations of shade, and although wild in its native state, no fowl is more capable of being rendered domestic."

TAMAZULA, a town at which he stopped, appeared to be rapidly declining, and contained about 1000 inhabitants. It is situated on the same river as Caneles. The inhabitants, are hospitable, and the "curate gave a brilliant ball."

"Although the curate seemed to be a man of about sixty years of age, his person was singularly well proportioned and handsome. His elegance of manners and splendid

waltzing, appeared to me, notwithstanding he was a curate, to be more becoming in him, than any other individual I ever beheld. Two of his daughters, as also one of the priests of the town, were at the entertainment. The young ladies were as modest, beautiful, and accomplished as any others I saw; insomuch that they far eclipsed all others in the room, on that truly joyous occasion.

" It may appear remarkable to the Christians of the United States that the clergy of Mexico should have children, but I can assure them, that they may have no doubt on that score; for no truth is of more acknowledged publicity, and nothing is more common than for the favourite unmarried wives to live with the holy fathers—at the same time their families are better educated and provided for, as a community, than any others in all Mexico.

" TAMAZULA is situated on what is called the Tamazula river; it being the same stream that floods out of the Madre Monte, upon which Caneles is built; but from the junction of the Umaya with it, it assumes the name of Culiacan, and continues to be a deep broad stream, until it arrives upon the plain next to the ocean. It there sinks, and is absorbed by the sand; and mouths in the Pacific—an insignificant river.

" CULIACAN, situated near the union of the Umaya and Tamazula rivers; contains about 5000 inhabitants; is the capital of the department of Sinaloa. The city does not differ in its appearance, or in the character of its people, from any other capital of Mexico. But there, as in the other cities, the priests, with their broad-brimmed shovel hats, and the military, have congregated to take care of the souls and weal of their dear people!

" COSALA is situated about one day's journey south from Culiacan, and from Cosala, it is but two days' journey further to the port of Mazatlan on the Pacific Ocean. Mazatlan is entirely defenceless from the surges and winds of the ocean, not possessing any of the attributes of a good harbour, and is unsafe for shipping, by its having a large rock immediately before the town, upon which vessels founder in time of storms. However, Mazatlan is the principal commercial port on the Mexican coast, on the Pacific Ocean. It contains about 5000 inhabitants, composed of every people from the four quarters of the globe, and seems to have been an attractive point for all the varieties of the human family. I imagine that the same number of people can hardly be found, where there is such a farrago of complexions and tongues.

" MAZATLAN is the principal stopping point in a voyage from China, by way of the Sandwich Islands, to the United States and Europe. The scale and the shell-fish of the Pacific coasts are abundant and excellent. There is a blue-gilled oyster caught upon this coast, equal to any of those in the Chesapeake bay. The Mexicans of the Pacific have a manner of preserving them, different from any other mode I ever heard of. Immediately upon taking them from the water, they are thrown upon the fire, and when roasted until the shell opens, the oyster is salted and dried. Put up in this manner it will soundly keep in any climate, just like the mackarel that are barrelled up in salt.

" On the plains of the Pacific coast I enjoyed perspiration, the atmosphere being more dense and humid than in the interior, and the heights of little elevation. Instead of the south-west winds having always a refreshing coolness in them, it was not unfrequently the case that they resembled the monsoons of the east.

" GUADALOUP DE CALVO is a town of about 10,000 inhabitants. It is situated about two days' journey north of Tamazula. It is, I was informed, of only ten or twelve years' existence, and its great population can only be accounted for from the fact that people congregate at such places where minerals are in successful operation. The silver mines here are worked by an English company, under the management of Mr. John Buchan. The mines yielded very profitably, but the ore was becoming poor. The enterprising agent informed me that it was his intention to seek new veins, and abandon those of Guadaloupé de Calvo.

" The houses of Guadaloupé are covered with shingles, and the windows had sashes and glass in them, as the English were the first builders there, and besides, timber is plentiful in the mountains.

" The mountain regions around Guadaloupé abounded in very rich silver ore. An English gentleman related to me an interesting account of the richest vein of silver, perhaps, that was ever opened. At a place called Refugia (the Refuge), an Indian, who followed the trade of making pack-saddles, having ascended a mountain in search of a

particular kind of grass, which he used for the purpose of stuffing, perceived, under a turf, a rock matted to a bunch of roots. Upon examining the stone, he found that it was heavier than rocks of that size generally are, and exhibited the specimen to a Spaniard, who informed him that it was one-half silver.

"The liberal Indian told the Spaniard where he had made the valuable discovery, and offered him a free gift of one-half of his right in the mine. The partners, with buoyant hopes, commenced proving the value of their enterprise, which resulted in the entire vein being one-half silver, and the other half stone. After they had extracted several millions of dollars of the precious metal, the mine became impoverished, and was abandoned, and the Indian and his partner were left worse off than when they first began to try their fortune. They were remarkably industrious in squandering their money faster than it could be dug from the earth.

"The inland road to California is direct from Guadaloupé de Calvo, north-west to the mouth of the Colorado river, where it enters into the Gulf of California. This way is like the most of all others of the Mexican roads, being nothing more than Indian trails, travelled only by animals, and never by carriages.

"The country between Guadaloupé de Calvo and the Colorado river is much infested by the Apache Indians, who are very barbarous, often cutting off the nose and ears of travellers, close to the head, and then turning them loose to their fate.

"The ports of Mazatlan and Guaymas are the usual ports of embarkation to Lower and Upper California, by the way of the ocean.

"At GUANOSEBI all of the rocks upon and under the surface of the earth, partake more or less of silver. Mr. Buchan informed me that he should open a mine at that place, which he thought would be profitable.

"After the general and the priest, the lawyer is the most formidable personage in Mexico. Mr. Buchan related that, in consequence of the many difficulties which originate in transacting business with the Mexicans, he found it to be a matter of both importance and profit to employ, continually, on behalf of the company, a lawyer; by doing which he only found it necessary, in the commencement of difficulties with obstreperous customers, to call into his presence his lawyer, and all obstacles were removed.

MAILS.—"The mails of Mexico are most generally carried by Indians on foot, who transport them, from post to post, more speedily than it could be by horses. An Indian, with his small wallet of corn-meal, and his little package of letters, will take his straight course over mountain, hill, and dale, that cannot be travelled by animals, and by that means shorten the distance, overcoming space in a wonderful manner. The robbers never molest them, for money is never carried in the mails, or the Indians possessed of valuables.

On the 30th of May, Mr. Gilliam commenced his homeward journey by way of Tampico, distant from Caneles about 1700 miles. The first place he arrived at was "the hacienda of Casa Blanca which was under the least improved condition of any that I had an opportunity of examining in all Mexico. In the first instance, there was an irrigating dam of water, one league and a half in extent. It was formed by a wall of earth and stone, built from hill to hill, and was filled by the rains. The water had, up to the time of my visit, been turned from it in a stream of eighteen inches in diameter, for a period of six weeks, to water the various parts of a corn-field—two leagues and a half square.

"The water was conducted over the land by canals, and turned upon the furrows by flood-gates at intervals, the canals running along the higher elevation of the farm. There was corn sealed up in many cone-like houses of from one to three years of age. There were other extensive lands used for pasturing purposes, upon which hundreds of animals grazed. There was at the principal granary a stack of what the Mexicans call fodder at least fifty feet high and 300 feet in length. *Oca*, fodder, in Mexico is the stalk with the blade not cured separately, but cut altogether.

"Indeed, I have, in the hot damp valleys, seen corn that had been thickly sown for the purpose of making fodder. The estate belonged to one of the most enterprising and speculating citizens of Mexico. I was informed that he once bought 2000 old horses, at

two dollars each, and that when they were boiled into soap, they averaged him fifteen dollars a-piece.

"A day's journey, to my great joy, put me on the east side of the Cordilleras, where, perhaps, lies buried more of the precious metals than the world will ever have industry sufficient to excavate; for it seemed as if silver ran through their whole extent.

"Our journey lay across the dominions of the Conde de Coral, the most wealthy of all the citizens of Mexico, as I was informed. Ever since I had left the Cordilleras on my rear, my direction was a little south of due east. As I progressed, it was observable that I was rapidly descending from an elevated to a lower region; for the towering peaks of the back-bone mountains were lost to my view, while the distant points of others would anon show their heads, in a country far below the elevation that I was on. I remarked that the end of each day's journey would place me upon a declivity, beneath that of the former one. In one instance, my entire day's travel was in the evening closed by abruptly descending a short height, which put me upon a plain as much below the former one, as was the elevation of the hills to my rear.

"These plains are chiefly wooded with palm-trees, apparently not possessing the sterility of the table-lands of the Cordilleras.

"On the 14th, I arrived at the mineral town of Los Angelos. I had, ever since the commencement of my journey from Casa Blanca, been descending to a hot region, and at Matehuala I found fruits and vegetables in abundance. The sweet orange and the lemon, the pine-apple and the banana, the plantains, plums, pears, peaches, and water-melons also were abundant. I obtained, also, some delightful lettuce, cucumbers, and tomatoes, which I found most congenial to my appetite; for, when travelling, I could never buy vegetables, excepting in the towns.

"The atmosphere in the more arid portions of the country, is of such a drying nature that animal matter shrinks and dries rather than consume by putrid decomposition.

"On the 25th, I arrived at the town of Tola, a place containing about 2000 inhabitants, and situated on an uneven and confined narrow slip of land, between two hills.

"On the morning of the 26th, after travelling two leagues over a fertile and highly cultivated country, I discovered that a mountain of considerable magnitude lay before me, over which the road wound. My journey was most disagreeable, for the recent rains had made the black mould of the earth very miry, and between mud and stone alternately, our animals progressed very slowly, and with much difficulty. Yet my journey was not without its interest, for the mountain was covered with the most magnificent forest of live oak that I ever beheld.

"After fording a small river at the foot of the mountain, we travelled along an uneven and well-watered valley for about one hour, when we again commenced ascending a higher mountain. So precipitate was the height, that one-half of the day was consumed in gaining its summit by the zig-zag and narrow path.

"The rains that had fallen had given to the abundant vegetation a most perfect green aspect; while the farm-houses, with their sharp thatched roofs, had a picturesque and romantic appearance."

Within three leagues of Tampico, the lands were heavily loaded with iron-wood and fustic. On the 31st of June, he arrived at Tampico, having travelled about 4000 miles.

SKETCHES OF THE DEPARTMENT OF MEXICO.

The following extracts from Mr. Mayer's work, during excursions made from the capital to various neighbouring districts, conveys the most recent information of these parts.

After leaving the city of Mexico, he says:

"The road over the plain was no longer a highway but a water-course, rushing and gurgling over every descent. The poor Indians returning from market paddled along, shrouded up in their *petates*. At the city gate the guard of custom-house officers wished to charge an export duty on our wine, but our passes from M. de Bocanegra and the governor saved us, and we launched forth on the road to St. Augustin, with the shower increasing every minute. It is useless to say more of this dreary evening. For three hours the rain was incessant; and that the rain of a tropical storm, with huge drops, and wind and lightning. The water flowed from our blankets like spouts.

"It was quite dark when our cold, weary, and uncomfortable party entered St. Augustin, and at the house where we were to stay for the night, we hoped to find every thing duly prepared for our reception; and among our hopes, not the least was for a blazing fire to dry our bespattered garments. We came up to the door, one by one, silently and surlily. We were not only angry with the weather, but seemed to be mutually dissatisfied. After a deal of thumping, the door was slowly opened, and instead of the salutation of a brilliant blaze in the midst of the court-yard—one miserable, sickly tallow candle made its appearance! and we found, notwithstanding the usual protection of Mexican blankets, Mexican saddles, and *armas de agua*, that the rain had penetrated most of our equipments, and that we were decidedly damp, if not thoroughly drenched. We entered the house after disposing of our accoutrements in a large hall, and found comfortable quarters and beds enough for all parties.

SUNDAY.—"As the bells were ringing for mass, and the villagers hurrying through the streets to church, we sallied forth, every man trying to discover the symptom, even, of a break among the dreary brownish clouds that hung low from the mountain-tops to the valley.

"As soon as the road leaves the town of St. Augustin, it strikes directly up the mountain, and runs over crags and ravines which in our country would startle the delicate nerves of a lady. Railroads and McAdam have spoiled us; but here, where the toilsome mule and the universal horse have converted men almost into centaurs and are the traditional means of communication, no one thinks of improving the highways. But, of late years, diligences are getting into vogue between the chief cities of the republic; and one, built in Troy, has been started on this very road. How it gets along over such ruts and drains, rocks and mountain-passes, it is difficult to imagine!

"On we went, however, over hill and dale, the misty rain still drifting around us, and becoming finer and mistier as we rose on the mountain. The prospect was dreary enough; but in fine weather these passes are said to present a series of beautiful landscapes. In front is then beheld the wild mountain scenery, while, to the north, the valley sinks gradually into the plain, mellowed by distance, and traversed by the lakes of Chalco and Tezcoco. Of the former of these we had a distinct view as the wind drifted the mist aside for a moment, when we had nearly attained the summit of the mountain. Here we passed a gang of labourers impressed for the army, and going *tied in pairs*, under an escort of soldiers, to serve in the capital. This was *recruiting*! Further on, we passed the body of a man laying on the side-path. He had evidently just died, and, perhaps, had been one of the party we had encountered. No one noticed him; his hat was spread over his face, and the rain was pelting on him.

"We saw no habitations, no symptoms of cultivation; in fact, nothing except rocks and stunted herbage, and now and then a muleteer, a miserable Indian plodding with a pannier of fruit to Mexico, or an Indian shepherd-boy, in his long *thatch-cloak* of waterflags, perched on a crag and watching his miserable cattle. We were now travelling among the clouds, near 9000 feet above the level of the sea.

"After about four hour's journey in this desolation, the clouds suddenly broke to the southward, revealing the blue sky between masses of sullen vapour, and thus we reached our breakfasting house on the top of the mountain.

MEXICAN FARE.—"Imagine a mud-hole (not a regular lake of mud, but a mass of that clayey, oozy, grayish substance, which sucks your feet at every step), surrounded by eight huts, built of logs and reeds, stuck into the watery earth, and thatched with palm leaves. This was the stage breakfasting station, on the road from Mexico to Cuernavaca. We asked for '*the house*'; and a hut, a little more open than the rest, was pointed out. It was in

two divisions, one being closed with reeds, and the other entirely exposed, along one side of which was spread a rough board supported on four sticks covered with a dirty cloth. It was the principal hotel!

"We asked for breakfast, but the answer was '*Nada!*'—nothing.

"We tried to coax them, but without effect; and, at length, we ordered a mule to be unladen and our own provisions to be unpacked. This produced a stir in the household as soon as it became evident that there was to be no high bid for food.

"In a moment I found a couple of women at work, one grinding corn for tortillas, and the other patting them into shape for the griddle. At length the eggs were boiled and tortillas baked, and a pan heaped with the desired turkey and chilé, and another full of delicious frijoles appeared.

"About one o'clock we had again mounted, and riding along a level road which winds through the table-land of the mountain-top, we passed the Cruz del Marquez, a large stone cross set up not long after the conquest to mark the boundary of the estate presented by Montezuma to Cortez. At this spot the road is 9500 feet above the level of the sea, and thence commences the descent of the southern mountain-slope toward the Vale of Cuernavaca. The pine forest in many places is open and arching, like a park, and covers a wide sweep of meadow and valley. The air soon became milder, the sun warmer, the vegetation more varied, the fields less arid, and yet all was forest scenery, apparently untouched by the hand of man. In this respect it presents a marked difference from the mountains around the Valley of Mexico, where the denser population has destroyed the timber and cultivated the land.

"The road is remarkable for being infested with robbers, but we fortunately met none, we were probably too strong for the ordinary gangs, some fifty shots from a company of foreigners, with double-barrelled guns and revolving pistols, being dangerous welcome.

"After a slow ride during the afternoon, we suddenly changed our climate. We had left the *tierras frias* and *tierras templadas* (the cold and temperate lands), and had plunged at once, by a rapid descent of the mountain, into the *tierra caliente*, where the sun was raging with tropical fervour. The vegetation became entirely different and more luxuriant, and a break among the hills suddenly disclosed to us the valley of Cuernavaca, bending to the east with its easy bow. The features of this valley are entirely different from those of the valley of Mexico, for, although both possess many of the same elements of grandeur and sublimity, in the lofty and wide sweeping mountains; yet there is a southern gentleness, and purple haziness about this, that softens the picture, and are wanting in the Vale of Mexico, in the high and rarefied atmosphere of which every object, even at the greater distance, stands out with almost microscopic distinctness. Besides this, the foliage is fuller, the forests thicker, the sky milder, and every thing betokens the sway of a bland and tropical climate.

"A bend of the road around a precipice, revealed to us the town of Cuernavaca, lying beyond the forest in the lap of the valley, while far in the east the mountains were lost in the plain, like a distant line of sea. Our company gathered together on the announcement of the first sight of our post of destination for the night. It was decided by the novices in Mexican travelling, that it could not be more distant than a couple of leagues at furthest; but long was the weary ride, descending and descending, with scarcely a perceptible decrease of space before we reached the city.

"In the course of this afternoon we passed through several Indian villages, and saw numbers of people at work in the fields by the road side. Two things struck me; first, the miserable hovels in which the Indians are lodged, in comparison with which a decent dog-kennel at home is a comfortable household; and second, the fact that this, although the Sabbath, was no day of repose to these ever-working, but poor and thriftless people. Many of the wretched creatures were stowed away under a roof of thatch, stuck on the bare ground, with a hole left at one end to crawl in!

APOLOGY FOR SLAVERY.—"What can be the benefit of a republican form of government to masses of such a population? They have no ambition to improve their condition, or in so plenteous a country it would be improved; they are content to live and lie like the beasts of the field; they have no qualifications for self-government, and they can have no hope, when a life of such toil avails not to avoid such misery. Is it possible for such

men to become republicans? It appears to me that the life of a negro, under a good master in our country, is far better than the beastly degradation of the Indian here. With us, he is at least a man (?); but in Mexico, even the instincts of his human nature are scarcely preserved.

"It is true that these men are *free*, and have the unquestionable liberty, after raising their crop of fruits or vegetables, to trot with it fifty or sixty miles, *on foot*, to market; where the produce of their toil is, in a few hours, spent, either at the gambling-table or the *pulqué* shop. After this they have the liberty, as soon as they get sober, to trot back again to their kennels in the mountains, if they are not previously *lassoed* by some recruiting sergeant, and forced to 'volunteer' in the army. Yet what is the worth of such *purposeless* liberty or the worth of such purposeless life? There is not a single ingredient of a noble-spirited and high-minded *mountain peasantry* in them. Mixed in their races, they have been enslaved and degraded by the conquest; ground into abject servility during the colonial government; corrupted in spirit by the superstitious rites of an ignorant priesthood; and now, without hope, without education, without other interest in their welfare, than that of some good-hearted village curate, they drag out a miserable existence of beastiality and crime. Shall such men be expected to govern themselves?

"It was long after sunset when we descended the last steep, and passed a neat little village, where the people were sitting in front of their low-roofed houses, from every one of which issued the tinkle of guitars. The bright sky reflected a long twilight, and it was just becoming dark when we trotted into Cuernavaca, after a ride of fourteen leagues.

HOTEL ACCOMMODATIONS.—"Our companions had already reached the inn, and as we dashed into the court-yard, we found them *à tort et à travers* with the landlord about rooms. We had seen a flaming advertisement of this tavern and its comforts in the papers of the capital, and counted largely on splendid apartments and savoury supper after our tiresome ride and pic-nic breakfast. But, as at the 'diligence hotel' in the morning, every thing went to the tune of '*No hai!*' No hai beds, rooms, meats, soups, supper—nada! They had nothing! We ended by securing two rooms, and I set out to examine them, as well as my legs (stiff from being all day in the hard Mexican stirrups) would let me. The first room I entered was covered with water from the heavy rains. The second adjoined the first; and although the walls were damp, the floor was dry; but there was no window or opening except the door.

"We had secured the room, and of course wanted *beds*; because, room and bed, and bureau, and wash-stand, and towels, and soap, are not all synonymous here as in other civilised countries. Four of our travellers had fortunately brought cots with them: but I had trusted to my two blankets and my old habits of foraging. At length the master managed to find a bed for two more of us, and a cot for me, and thus the night was provided for. We had resolved not to go without supper, and I was despatched to the kitchen. I will not disclose the history of my negotiations on this occasion, but suffice it to say that in an hour's time we had a soup; a fragment of stewed mutton; a dish of Lima beans; a famous dish of turkey and peppers, and the table was set off by an enormous head of lettuce in the centre, garnished with outposts of oranges on either side, while two enormous pine-apples reared their prickly leaves in front and rear.

"An hour afterward we had all retired to our windowless room, and after piling our baggage against the door to keep out the robbers, I wrapped myself in my blanket, on the bare, pillowless, sacking-bottom, and was soon asleep.

CUERNAVACA "lies on a tongue of land jutting out into the lap of the valley. On its western side, a narrow glen has been scooped out by the water which descends from the mountains, and its sides are thickly covered with the richest verdure. To the east, the city again slopes rapidly, and then as rapidly rises. I walked down this valley street past the valley church built by Cortez (an old picturesque edifice filled with nooks and corners), where they were chanting a morning mass. In the yard of the palace, or *Casa Municipal*, at the end of the street, a body of dismounted cavalry soldiers were going through the sword exercise. From this I went to the plaza in front of it, at present nearly covered with a large wooden amphitheatre, that had been devoted to bull-fights during the recent national holydays. Around the edges of this edifice, the Indians and small farmers spread out their mats, covered with fine fruits and vegetables of the

tierra caliente. I passed up and down a number of the steep and narrow streets, bordered with ranges of one-story houses, open and cool, and fronted usually with balconies and porches screening them from the scorching sun. The softer and gentler appearance of the people, as compared with those of the Valley of Mexico, struck me forcibly. The whole has a Neapolitan air. The gardens are numerous and full of flowers. By the street sides small canals continually pour along the cool and clear waters from the mountains.

"The beautiful suburbs of Cuernavaca are chiefly inhabited by Indians, whose houses are built along the narrow lanes; and in a country where it is a comfort to be all day long in the open air under the shade of trees, and where you require no covering except to shelter you in sleep and showers, you may readily imagine that the dwellings of the people are exceedingly slight. A few canes stuck on end, and a thatch of cane, complete them.

"But the broad-leaved plantain, the thready pride of China, the 'feathery palm,' bending over them, and matted together by lacing vines and creeping plants covered with blossoms—these form the real dwellings. The whole, in fact, would look like a picture from 'Paul and Virginia'—but for the figures! 'Unkempt' men, indolent and lounging; begrimed women, surrounded by a set of naked little imps as begrimed as they; and all crawling or rolling over the filth of their earthen floors, or on dirty hides stretched over sticks for a bed. A handful of corn, a bunch of plantains, or a pan of beans picked from the nearest bushes, is their daily food; and here they burrow, like so many animals, from youth to manhood, from manhood to the grave.

"After leaving the city, our road lay for some distance along the high table-land, and at length struck into the glen which passes from the west of Cuernavaca, where, for the first time in Mexico, I actually lost the high-road. Imagine the channel of a mountain-stream down the side of an Alleghany mountain, with its stones chafed out of all order, and many of them worn into deep clefts by the continual tread of mules following each other, over one path, for centuries. This was the main turnpike of the country to the port of Acapulco, and several of our party managed to continue on horseback while descending the ravine.

HACIENDAS.—"This (the hacienda of Temisco) is one of the oldest establishments of note in the republic, and passed, not many years since, into the hands of the present owners for the sum of 300,000 dollars. The houses (consisting of the main dwelling, a large chapel, and all the requisite out buildings for grinding the cane and refining the sugar) were erected shortly after the conquest, and their walls bear yet the marks of the bullets with which the refractory owner was assailed during one of the numerous revolts in Mexico. He stood out stoutly against the enemy, and mustering his faithful Indians within the walls of this court-yard, repulsed the insurgents.

"This (the hacienda of Cocoyotla) is a small, but one of the most beautiful estates in the *tierra caliente*. A handsome chapel-tower has recently been added to the old edifice; a wing on broad arches has been given to the dwelling, and the garden is kept in tasteful order.

"Back of the house and bordering the garden, sweeps along a sweet stream, some twenty yards in width, and, by canals from it, the grounds are plentifully supplied with water. But the gem of Cocoyotla is the orangery. It is not only a grove, but a miniature forest, interspersed with broad-leaved plantains, guyavas, cocos, palms, and mammieis. It was burdened with fruits; and a multitude of birds, undisturbed by the sportsman, have made their abodes among the shadowy branches.

"We sauntered about in the delicious and fragrant shade for half an hour, while the gardener supplied us with the finest fruits. We were then summoned to an excellent breakfast of several courses, garnished with capital wine.

"When our repast was concluded, Senor Sylva conducted us over his house; showed us the interior of the neat church, where he has made pedestals for the figures of various saints out of *stalactites* from some neighbouring cavern; and finally dismissed us, with sacks of the choicest fruit, which he had ordered to be selected from his grove."

A RANCHO, OR FARMHOUSE.—"Our journey from the hacienda (Cocoyotla) was

toward the Cave of Cacahuawamilpa, which we propose visiting, and we have reached, to-night, the rancho of Michapas.

"This is a new feature in our travels. Hitherto we have been guests at haciendas and comfortable town dwellings, but to-night we are lodged in a rancho—a small farmer's dwelling—an Indian hut.

"We arrived about five o'clock, after a warm ride over wide and solitary moors, with a background of the mountains we passed yesterday. In front another sierra stretches along the horizon; and in the foreground of the picture, a lake, near a mile in circuit, spreads out its silver sheet in the sunset, margined with wide-spreading trees and covered with water-fowl.

"The house is built of mud and reeds, matted together; that is, there are four walls without other aperture but a door, while a thatch, supported on poles, spreads on either side from the roof-tree, forming a porch in front. This thatch is not allowed to touch the tops of the walls, but between them and it, all around the house, a space of five or six feet has been left, by means of which a free circulation of air is kept up within. The interior (of one room) is in perfect keeping with this aboriginal simplicity. Along the western wall there are a number of wretched engravings of saints, with inscriptions and verses beneath them; next, a huge picture of the Virgin of Guadalupe, with tarnished gilded rays, blazes in the centre; and near the corner is nailed a massive cross, with the figure of our Saviour apparently bleeding at every pore. A reed and spear are crossed below it, and large wreaths and festoons of marigolds are hung around. Six tressels, with reeds spread over them, stand against the wall; and in one corner a dilapidated canopy, with a tattered curtain, rears its pretentious head to do the honours of state-bedstead. The floor is of earth, and, in a corner, are safely stowed our saddles, bridles, guns, pistols, holsters, swords, and spurs—so that taking a sidelong glance at the whole establishment, you might well doubt whether you were in a stable, church, sleeping-room, or chicken-coop!

"Don Miguel Benito, the proprietor, is a man some fifty years of age; delights in a shirt, the sleeves of which have been so long rolled up, that there is no longer any thing to roll down; and a pair of those elastic leather breeches that last one's lifetime in Mexico, and grow to any size that may be required, as the fortunate owner happens to fatten with his years. Not the least curious part of Don Miguel's household, is his female establishment, as not less than a dozen women, of all colours and complexions, hover about his dwellings; while at least an equal number of little urchins, with light hair and dark roll over the mud-floors of the neighbouring huts, or amuse themselves by *lassoing* the chickens.

"—— The caterer of our mess, thought it but a due compliment to Don Miguel (who does not disdain to receive your money) to order supper—though we resolved to fall back, in case of necessity, upon our own stores, and accordingly unpacked some pots of soup and sardines.

"In the course of an hour, a board was spread upon four sticks, and in the middle of it was placed a massive brown earthen platter, with the stew. At the same time, a dirty copper spoon and a hot tortilla were laid before each of us. Although we had determined to hold ourselves in reserve for our soups, yet there was but little left of the savoury mess. Our turtle, flanked with lemons and claret, then came into play; and the repast was ended by another smoking platter of the universal frijoles (beans).

"When we crept to our reed tressels and serapes, at eleven o'clock, I found that the state-bed was already occupied by a smart-looking fellow from the West Coast (who I take to have been rather deeply engaged in the contraband) and his young wife—a lively looking lass, rather whiter than the rest of the brood—who had spruced herself up on our arrival. Twelve of our party lodged together in this apartment, while Don Miguel betook himself, with the rest of his household, to mats under the porch.

"It rained heavily last night (22nd September), but the morning, as usual, was fresh, clear, and warm. After a cup of chocolate, we sallied forth toward the Cave of Cacahuawamilpa, having previously despatched our arriéros with the mules to Tetecala, to await our return on our journey toward Cuautla.

"Our forces this morning were increased by the addition of some twelve or thirteen

Indians, who had been engaged by Don Miguel to accompany us as guides to the cavern. They bore with them the rockets and torches which were to be burned within, and a large quantity of twine for threading the labyrinth.

"Leaving the lake, situated on the very edge of the table-land, we struck down a deep barranca, at the bottom of which our horses sunk nearly to their girths at every footstep, in an oozy marsh, that had not been improved by last night's rain. But passing these bogs, we ascended a steep line of hills, whence there was a splendid view of the snow-capped volcanos of Puebla, and soon reached the Indian village of Totlawahmilpa, where it was necessary to procure a 'licence' to visit the cavern; or, in other words, where the authorities extort a sum of money from every passenger, under the plea of keeping the road open, and the entrance safe. As we had special passports from the Mexican government to go where we pleased in the *tierra caliente*, I thought this precaution unnecessary, but our Indians refused to budge a peg without a visit to the alcaldé; and therefore, while some of the party entered a hut, and set the women to cooking tortillas, others proceeded with the passports to the civic authorities."

The following is the most pleasing description of any part of Mexico which we have met with:—

HACIENDAS OF ST. NICOLAS.—"We left Tetecala this morning (23rd September), at eight o'clock, for the hacienda of St. Nicolas. For the present, at least, we seem to have done with the mountains, as our road to-day lay entirely over the plain. During the three last days, we have been wandering among gigantic mountains and over wild moors, where the solitude of nature reigns in all its majesty; but the picture varies in the direction of CUAUTLA. The mountains sink into the plain, and the plain is rich, fertile, and cultivated with the nicest economy.

"About twelve o'clock we saw the hacienda lying in the distance, in the lap of the plain, with a small hill or two hard by, just large enough to vary the scenery. As we approached the white-walled buildings, we could not help remarking the uncommonly neat appearance of every thing about the estate. The sugar-fields were in capital order, the roads smooth, the fences had been put up, the cattle were under the care of men. The Indian village, inhabited by many of the labourers on the estate, was tidy and comfortable, and there was a cleanliness and decency in the appearance of the people that I had not seen elsewhere. Indeed, the whole view of this plain, hemmed in by the distant summits of the mountains, reminded me strongly of some of the pictures of rural beauty constantly presented to the traveller in New England: and I was the more forcibly struck with this, when I looked from the corridor of the hacienda over the whole expanse of country, and saw it dotted here and there with villages and haciendas, the white towers of whose chapels rose up beautifully from an unbroken mass of verdure.

"We were received at this plantation by the administrador, or steward, who had been expecting us for an hour or more; and though he had already partaken of his dinner (believing that we did not intend visiting St. Nicolas to-day), he immediately ordered another, in the meantime showing us to a large and cool apartment, containing a number of beds, where we made a hasty toilet.

"We took a *siesta* after dinner, and then walked with Don A. over the estate. The whole of the fields are planted with cane for a great distance around the house, which forms, by itself, a very extensive establishment.

"First there is the dwelling, a large two-story edifice, having in the basement all the offices, and the store where every necessary is sold to the Indians; above this are the kitchens, parlours, bedrooms, and an immense corridor on arches, looking toward the east, filled with caged birds, and hung with hammocks, where the family pass most of the long warm days of summer. In front is the *corral*, on the west of which are the store-houses and buildings to receive the crop; while on the east is another huge edifice, where the boilers, engines, crushing machines, cooling vats, moulding apartments, &c., constitute the *trapiche* of the hacienda. It is a little city in itself.

"At sunset all the Indians employed on the premises assembled under the corridor on the basement floor, to account to the administrador for their day's labour and their presence. As he called their names each one replied with '*Alabo á Dios*',—'I praise

God,' and ranged himself against the wall in a line with those who had already responded. When the whole list had been examined, they were dismissed, and departed in a body singing an Indian hymn to the Virgin, the sounds of which died away in the distance as they plodded home over the level fields to their village.

"At night we heard the sound of a clarionet, bass-drum, and flute, at some distance from the dwelling, and on inquiry, discovered that band of musicians had been organised in an adjoining village by the owner of the hacienda. We strolled over. The whole of a large hut had been appropriated for a musical hall, where the performers were just assembling; while others, who had already arrived, were engaged in tuning their instruments. The leader was quite a respectable-looking Indian, decently dressed, who played the violin; the clarionet player was fortunate in the possession of cotton drawers and a shirt; the bassoon had a pair of drawers but no shirt; the serpent was the wildest looking Indian I ever saw, with long dishevelled black hair, and eyes worthy of his instrument; the big drum was a huge portly old negro, who reminded me of many of our performers on it at home; while the octave flute was an urchin of not more than twelve, the wickedest little devil imaginable, but a fellow of infinite talent, and a capital performer.

"The night was rather too hot to permit us to remain long in the apartment with an Indian crowd; we therefore took our seats outside, where we were favoured by the self-taught amateurs with several airs from recent operas, performed in a style that would not have injured the reputation of many a military band at home (the United States).

"It may reasonably be argued, from a scene like this, that the Indians have talents for one of the arts requiring a high degree of natural delicacy and refinement. If it had been the care of all Spanish proprietors gradually to bring forth their latent dispositions as the Senores J. have done, Mexico would now present a picture very different from that of the degradation which fills its valleys with a slothful, ignorant, and debased multitude.

"About two weeks since, seven armed and mounted ruffians attacked two Frenchmen and their servants near the hacienda of Trenta. One of the Frenchmen was severely wounded, but the other, aided by the two *mosos*, succeeded in beating off the robbers, who left one of their number dead on the field, and his horse and trappings as spoils for the victor.

CUAUTLA DE AMILPAS AND HACIENDA DE ST. INEZ.—"We left the hospitable hacienda of San Nicolas at four o'clock this morning (24th September), and passed through a great number of Indian villages, and some haciendas of considerable extent, especially that of *Trenta*, which derives its name from the fact that it was originally purchased for the sum of thirty dollars. With its village, its church (nearly a cathedral in size), its immense sugar works and princely domain, I suppose it could not be acquired now for much less than half a million.

"After enjoying a fine view of the volcano of Popocapetl at sunrise, and passing the village of Tlaltisappan, we struck into the mountain gorges which we had been for some time approaching. The ground gradually rose, the glens and defiles became more numerous, and among the wild and tangled forests of these solitary mountains we passed many ill-looking wretches, armed and mounted, but always in too small a number to attack our party. There is no doubt they were robbers, as several had their faces partly disguised, while their weapons were cocked and resting in their hands as they passed us. We cocked ours, also, and thus moved on fairly quits with the vagabonds.

"On the sides of these mountains, there were continuous groves of that tall pillar-like species of the *cactus* which is called '*organos*'.

"The heat became insufferable towards noon, and I felt, for the first time, weary of our journey among the lonely hills and defiles. Our impatience to reach Cuautla was increased by the accounts of the Indians we encountered on the road, who invariably added a league or half a league to the distance as we advanced. At length, however, after passing through a very extensive Indian corn-field, which I computed to contain at least five hundred acres, we reached the valley of Amilpas, and, in half an hour more, en-

tered an Indian village bowered in the foliage of bananas and palms, through the midst of which ran a cool and sparkling streamlet. Here we halted to refresh ourselves, as the sun was blistering our skins, and we burned with a fever that was scarcely mitigated by profuse perspiration. After leaving this village, Cuautla appeared immediately on our left, with a rapid river running by it; while, in front, was the stately hacienda of Cuauhistla, belonging to the Dominican monks of Mexico, from the revenues of which a liberal sum is annually set apart for the entertainment of travellers.

CUAUTLA is a perfect southern city. The houses are small and airy; clear water gurgles through the middle of the street; broad-leaved trees fling their branches over the low dwellings. The women loll, half-dressed, in the windows and doors, gazing at nothing or each other; the men seem to have as little to do as the women, and the whole has an air of the 'dolce far niente,' which prevails in this mild and tempting climate.

"Passing through the square, we entered a by-street and arrived at the door of the meson (tavern).

"The gate of the court-yard was thrown open for us. In front lay a narrow lane, on one side of which was a shed, and beneath it a couple of sheep munching a stack of green corn in a corner, while a couple of turkeys picked up what they could find. On the roof a lot of sheepskins, recently taken from the animal, were spread out to dry in the sun. At the end of the lane was the kitchen of the meson.

"From the end of the lane I have described, another struck off at right-angles with it, and both of its sides were adorned with a row of one-story windowless cabins, over the doors of which appeared, in true hotel fashion, the numbers 1.—2.—3.—4.—5.—6.

"G— got down to examine, and the landlord led the way. He first opened No. 3. It was eight feet long, about six wide, and ten high; in one corner lay a pool of mud on the earthen floor, and the walls were literally black with fleas. G— at once objected to this, and the landlord said that it was of course not intended for the senores, but for the baggage and the mosos. He had 'another, more comfortable' for ourselves; and stepping across the street opened No. 6, which, from its exterior, appeared to be of the same size as No. 3. Scarcely had he turned the bolt—when out walked a full grown ass!

"The hacienda of Santa Inez is situated in the midst of sugar-fields to the north of the town, and the works, residence, chapel, and Indian village, are bordered by a beautiful stream among some of the finest forest trees I have seen in the republic. Ample accommodation and beds were offered us; a meal (which, in apologising for, he called a 'penitencia,') was quickly spread on snowy damask, served with a fine display of silver and excellent claret; and the whole was seasoned with a welcome that will mark Don Filipe in my memory as a man to be trusted in times of difficulty.

"On Saturday evening, after a walk in the charming groves that border the brook and Indian village, from which there was a noble prospect of the whole of Popocatepetl, with the sunset tinging its snows, we returned to the hacienda and took seats in the lower court, near the office where the clerk of the administrador was paying off the hands for their week's work. Here chocolate was handed us, served in the same tasteful style as our dinner.

DEGRADED STATE OF THE ABORIGINES.—"The hands were all mustered, and came up with the usual 'Alabo a Dios!' to receive their weekly wages, as on last evening at San Nicolas.

"Don Filipe informs me that all the ordinary expenses of this estate are 500 dollars per week; but during the working season they rise frequently to 1200 dollars. Three hundred labourers are usually employed at two and a half to three *reals* a day, and the total production of the hacienda is about 40,000 loaves annually—the loaves averaging twenty-three pounds—or, in all, 920,000 pounds of refined sugar. Here, as elsewhere, the molasses nearly pays the expenses.

"He complains greatly of the worthlessness of the Indians, and expresses hopes of improvement from the establishment of schools in Cuautla, where the young children learn rapidly, if they are allowed by their intemperate and gambling parents to continue

in their classes. He alleges that the greatest punishment for the Indians is to discharge and expel them entirely from the estates upon which they and their ancestors from time immemorial, have worked ; but he intimates that other punishments are resorted to for trifling faults and excesses, and I doubt not the whip is made to play an important part in the discipline of Mexican plantations.

" Mr. Stephens, in his last work on Yucatan, says :

" ' Looking into the corridor, we saw the poor Indian on his knees on the pavement, with his arms clasped around the knees of another Indian, so as to present his back fairly to the lash. At every blow he rose on one knee, and sent forth a piercing cry. He seemed struggling to retain it, but it burst forth in spite of all his efforts. His whole bearing showed the subdued character of the present Indians, and with the last stripe the expression of his face seemed that of thankfulness for not getting more. Without uttering a word, he crept to the major-domo, took his hand, kissed it, and walked away. No sense of degradation crossed his mind. Indeed, so humbled is this once fierce people, that they have a proverb of their own : ' Los Indios no oigan sino por las salgas'—the Indians only hear through their backs.'

ANOTHER ARGUMENT IN FAVOUR OF SLAVERY.—" In what then is this Indian population, throughout the planting, farming, and mining districts, equal to our slaves ? Although not hereditary property by law, they are hereditary by custom, and the force of those circumstances which deny them the opportunity of bettering their condition, either by emigration to foreign countries, or by diffusing themselves over their own. They form a degraded caste. They are subjected to the control of masters and overseers, and although it is true that they are regularly paid for their labour and habitual degradation, yet they are ignorant, gambling, intemperate, and liable at any moment to be submitted to the lash, against which they have not the courage to offer the slightest resistance. With all the boast, therefore, of the authorities of Mexico, that no man is held in bondage within its limits, I still think that no candid person can inspect the condition of these labourers without giving the palm to our negroes, and exclaiming indignantly at the masked slavery which is carried on from year to year, without the slightest prospect of ameliorating the character or condition of the miserable natives.

" If a man become slave by descent, under the well-established laws (!!!) of a nation by which the institution is recognised, he has always a master, whose duty it is to afford him food, raiment, and protection, in recompense for his toil ; and although moralists may say that slavery is in its very nature deteriorating, yet it does not crush the very spirit from the negro, or tend always to his debasement. He is sober ; he cares for his family ; he feels the duties of the social relations, even in his 'quarter,' and is ambitious of the degree of respectability he may acquire among his fellow slaves. His condition must, therefore, both physically and intellectually, be superior to that of the Indian who becomes a slave, in spite of the law, by the servility of his character and the loathsome vices that absorb his earnings, without a care for the comfort of his family, the education of his children, or even the personal appearance he presents among his fellows (!! !).

" When we remember the degree of civilisation that had been attained by these races anterior to the Mexican conquest, it is impossible to believe that their present debasement is to be alone attributed to an enervating climate ; nor can Mexico ever claim a high standing among nations until she blots this stain of hypocritical freedom from the fairest portions of her territory. With the improvement of the lot and character of her Indians (who number near four millions of the seven that compose her whole population,) the steady advancement of the nation will proceed ; but until that occurs, her fondest admirers can have but little hope, either for her progress or even for her continuance as a nation.

CUAUTLA.—" The next morning (Sunday, September 25) we arose early and went to the town of Cuautla, passing great numbers of Indians with half-shaved heads on their way to the Sunday market, where they usually assemble in the Plaza to purchase and sell their commodities. As we reached the town, the bells were ringing for mass, and we strolled into several of the churches. One of them was being repaired, and the altars were filled with skulls and bones that had been taken up while the floor was under-

going the requisite renovation. In the *parroquia*, or parish church, the stench from the dead bodies beneath the rough boards over which we trod, was so abominable that I hastened out of it, without examining some figures of Saints and Apostles done up in dresses that resembled very much the antique uniforms of the eighteenth century. Such anachronisms, however, are of frequent occurrence, and I have before alluded to them, in the instance where even our Saviour was represented in one of the most splendid churches of Mexico in a blue velvet robe and a *Guyaquil sombrero*!

"In the square, there were hundreds of Indians under cane booths, on mats spread with fruits, skins, rebosos, serapes, ices, orgaets, lemonade, vegetables, flowers, and all the varied products of the *tierra caliente*. I stepped into one and breakfasted on oranges, sponge cake, and iced milk. The stores around the square were all open, and indeed I saw no cessation of the usual week-day occupations, except among the Indians who thronged the Plaza. The women, as on yesterday, lolled in the broad window-sills! the men lolled opposite them, or leaned against the walls in the shade—and the excessive heat seemed to have predisposed every one, before ten o'clock, to a doze or a siesta.

"In one of the stores (while Don Juan was bargaining for a horse) the owner showed me a *centipede* of the *tierra caliente*, a horrible reptile of the scorpion kind, with which he says the old houses of Cuautla are infested. These and the *alacranes* (a sort of cross of the spider on the scorpion), are the scourges of the warm country, and the bite of both frequently results in the extreme illness of adults, and the death of children.

"A wide plain skirts the foot of the sierra that hems in the Valley of Mexico, and runs from the valley of Cuautla into that of Puebla. Over it lay our road this afternoon (towards the city of Mexico) and after passing one of those strange and deep barrancas, down which plunged a cascade of clear water for some two hundred feet, we commenced the ascent of the range of mountains forming the last barrier between us and the capital.

"Scarcely had we mounted the hills when it began to rain, for the first time during the day since we left Cuernavaca, and I experienced immediately a remarkable change in the temperature, from the scorching heat in the square of Cuautla. Our serapes were at once put on, and we wore them for the rest of the evening.

"Santa Inez is on the limit of the *tierra caliente*;—at five or six miles distance the culture of the sugar cane ceases, and the *tierra templada* commences.

"We passed the beautiful Indian village of Acaclauca, with its green leaves, chapels, and churches, in front of one of which I saw the last tall group of palm-trees standing out with their feathery branches relieved against the snow of Popocapetl. It was a strange picture, mingling in one frame the tropic and the pole.

"Near eight o'clock the distant barking of dogs announced our approach to the village where we designed resting until morning. Small fires were lighted before each door, and by their light we meandered through half-a-dozen crooked and hilly streets before we reached the house of the worthy Don Juan Gonzales (an old friend of the consul), who at a moment's notice received us under his hospitable roof.

"Don Juan is a man 'well to do' in the world of his little village;—he keeps a store, rents a room to a club of village folks, who like a drop of aguardiente or a quiet game of *monte*. In one corner of his long, low, back parlour stood a picture of the Virgin with a lamp burning before it, while opposite was a table, around which were gathered five of the neighbours in shirt-sleeves, slouched hats, and beards of a week's growth, busy with a game of cards, in the light of a dim candle.

"After a frugal supper of tortillas and chocolate, we retired to feather-beds and clean sheets on the floor—but I was glad when we were called to horse at three in the morning. It had been a night of sore encounter; an army of fleas attacked us, the moment we retired.

AYOTLA.—"We were off at half-past three (26th of September), by the moonlight of a cold and frosty morning, and, at the first streak of day found that we were winding high up the spur of hills that juts out from the sides of Popocapetl, which was in full view, with the clouds rolling off from its lofty head as the sun rose.

" Behind us, for near twenty leagues, the *tierra caliente* extended distinctly until the view was bounded by a bold and craggy sierra. We wound upward through the hill-farms, hanging against the sides of the mountains, and among the pine-forests, through whose branches a cold autumn wind was whistling. The road was *lined with crosses*, many of them recently erected, and hung with garlands and flowers; it is a dangerous pass, and infested by hordes of robbers, who attack the travellers either passing from Cuautla to the Valley of Mexico, or returning with the proceeds of their sales.

" Beyond the village of Hoochietipec, we lost sight both of the plain of Cuautla and the *tierra caliente*, and soon afterward the Valley of Mexico appeared to the west.

At TENANGO, "we stopped for breakfast. Our inn was a small rat-hole of a *meson* for muleteers, with a corral of a couple of acres; but the whole establishment bore the sounding name of the '*Purissima Sangre de Christo!*'"

" We found, to our sorrow, that we were no longer in the land of rich haciendas and hospitable administradores. The old song of 'no hail' had recommenced. We again mounted, and descending by a series of inclined planes, speedily reached the level of the plain of Mexico. This valley is exceedingly different from the *tierra caliente*. Although the temperature is milder, yet every thing is dry, parched, withered, and volcanic. The hill-sides and mountains are stripped of their forests; the fields are arid; the grain small and unproductive; and the whole has a waste and moor-like appearance. The Indians seem even dirtier, if possible, than those we have left behind us, and the patient mules travel over the long and dreary sands as if in a new Arabia.

" Passing through several mud-walled villages, we came at length upon the Vera Cruz road, and reached the town of Ayotla, seven leagues from Mexico.

" I would recommend every one who is about to travel through the *tierra caliente*, to procure a hammock of Sisal grass. With this, he is entirely his own master; and surely no mode of sleeping is more luxurious in a hot climate. You swing it from the rafters of the room—it is above the floor, clear of the walls, and free from insects—it bends to each motion of the body, fitting neatly to every part of your frame—you set it in motion, and while it swings you to sleep, it fans and refreshes by its gentle waving through the air.

" Besides the beautiful scenery through which I have passed during this journey, nothing has impressed me so favourably as the unaffected hospitality we met with everywhere, whether we came introduced or not. The old phrase, '*Mi casa, señor, está muy à su disposicion*:' 'My house is entirely at your service,' was not a phrase of course—a mere formula to be gone through and forgotten. Their houses, their animals, their servants, and themselves, were all at our command, and with a cordiality that forbade the idea of *arrière pensée*.

" Living in the country, at a distance from large towns, with but little literature, and few and irregularly-received newspapers, the *haciendados* and their *administradores* are glad to welcome the traveller as a guest to their doors. With ample means of accommodation and entertainment, they enjoy as well as confer a favour, and are as thankful for your visit, as you are to them for their repasts and attentions. You feel that the account is fairly balanced, that the other little elegancies and assiduities which are thrown in for your comfort are the result of *genuine hospitality*, and the promptings of excellent hearts."

The descriptions of Mexico by Mr. Mayer, though in some respects contradictory, are by far the most favourable; but his excursions were very limited; and generally we would consider that Mr. Chevalier, an acute observer, who visited the country in 1835, is far more conclusive. "I have only been two months in Mexico, and already I have witnessed five attempts at revolution. Insurrections have become quite ordinary occurrences here, and their settled forms have been gradually established, from which it is not considered fair to deviate. These seem almost as positively fixed as the laws of backgammon, or the recipes of domestic cookery. The first act of a revolution is called *pronun-*

ciamiento. An officer of any rank, from a general down to a lieutenant, pronounces himself against the established order, or against an institution which displeases him, or against any thing else. He gets together a detachment, a company, or a regiment, as the case may be, and these generally, without more ado, place themselves at his disposal. The second act is called the *Gecto*, or outcry, when two or three articles are drawn up, to state the motives or objects of the insurrection. If the matter is of some importance, the *Outcry* is called a *plan*. At the third act, the insurgents and the partisans of government are opposed to one another, and mutually examine each other's forces. At the fourth act, they come to blows ; but, according to the improved system lately introduced, the fighting is carried on in a very distant, moderate, and respectful manner. However, one party is declared victor, and the beaten party *dispronounce*. The conquerors march to Mexico, and their triumphal entry into the capital constitutes the fifth act of the play ; the vanquished meanwhile embark at Vera Cruz, or Tampico, with all the *horrors* of war.

" With tranquillity, unfortunately, every thing else is also lost. There is no longer any security. It is mere chance, if the diligence from Mexico to Vera Cruz proceed the whole way without being stopped and robbed. It requires whole regiments to convey the conducta of piastres to Vera Cruz. Travellers who cannot afford to pay for an escort, go armed from head to foot, and in little caravans. Here and there, rude crosses erected by the side of the road, and surrounded by heaps of stones, thrown by passers-by, in token of compassion, point out the spot where some wayfarer, and almost always a stranger, has perished by the hands of robbers. The immediate environs of the most populous cities are infested by malefactors, and even in the interior of cities not excepting the capital, there is no longer any security. There are numerous instances of people being robbed on a Sunday, and at the hour even when the greatest number of people are abroad, within a league of Mexico. An English chargé-d'affairs was lassoed on the Alameda, the public walk, in the middle of the day. In the evening, after sunset, notwithstanding the numerous guardians of the night (*serenos*), notwithstanding the videttes of cavalry at every corner of the streets, notwithstanding the law prohibits the riding on horseback through the streets after eight o'clock, in order to prevent the use of the lasso, a man is not safe in Mexico, not even in his own house. If, in the evening at eight or nine o'clock, you visit a friend, before the porter consents to open the enormous gate, lined with iron or bronze, there pass as many formalities as if it were a question of letting down the drawbridge of a fortress. Persons, on whose words I think I can rely, have assured me, that as many as 900 dead bodies are yearly deposited in the Morgue of Mexico."

CHARACTERISTICS OF THE INHABITANTS OF MEXICO.

THE Spanish Mexicans are accused of great indolence of character, occasioned by the abundant means of subsistence acquired by little industry. They are, from idleness, addicted to gambling, which is charged against them as a prevailing vice. Probably no two men differ from each other so widely in habits and character as the Anglo-Saxon Americans and the Spanish Americans.

Mr. Mayer says,—“The Mexicans are a proud and *sensitive* people; yet, none are more easily subdued by kindness—none more easily won by a ready disposition to mingle in their ranks, and treat them with a due respect for their habitudes and their prejudices.

“It seems impossible for them to get rid of the idea, that European powers are seeking to obtain their wealth and territory, and to re-establish the systems from which they freed themselves by so many years of revolutionary war; nor can they (since the Texan war) divest themselves of the erroneous notion, that the United States has ever a longing eye on their capital and country.

“There are but few entertainments given in Mexico, in comparison with those of other cities abroad, where a lavish expenditure in viands, lights, and amusements for the few hours of a single evening, are mistaken for the elegancies and refinements of genuine hospitality;—instead, however, of these ostentatious displays, there are frequent reunions at *turtulias*, where an hour or two are most agreeably spent.

“I have already alluded to the extreme of fashionable life, and its disposition for the theatre; and I do not intend to treat again of the propensity of the *ultras* to living thus constantly in the public eye, without devoting a portion of each day to that domestic intercourse and reunion which make the comfort and beauty of an English or American fireside. I speak, however, of that *juste milieu* of society, wherein resides the virtue and intellect of a country.

“It was my good fortune to reside for more than half a year in a native family, once rich and titled, but broken in fortunes by the political and commercial vicissitudes of the republic, and it was there that I constantly witnessed the most beautiful evidences of a filial devotion and parental love, amounting almost to passionate attachment. The lady at the head of the establishment, was a person who had been distinguished for her talents and accomplishments in the days when Mexico was adorned with the splendour of a Spanish court. She would have been considered highly cultivated in any country; her manners were excellent; her bearing graceful and courteous; and a wide circulation in her youth among distinguished men (both before and during the revolution), and a ready talent for imparting her recollections, made her conversation delightful and instructive. Besides this, she possessed a genius for miniature-painting and sketching in crayons, rarely attained by a female, and worthy of a distinguished artist. Qualities like these, brought around her constantly a large and intelligent circle of both sexes. The change of fortune had by no means diminished her estimation in society, and the numbers of fast friends who adhered to her in her comparative indigence, proved their admiration of talent, and the constancy of attachment, by the repetition of the most delicate and disinterested assiduities.

“It was in this Mexican *home*, and not from the unsympathising distance of the hotel and ball-room (the scene of most travellers' observation), that I obtained my insight into the structure of Mexican society and character. Had I kept myself aloof in my own house or my own inn, as is the habit of foreigners, I should have judged from the theatre, the *paséo*, the bull-ring, the cock-pit, and the gaming-table, that the women were but so many painted dolls, without more education or soul than was required to languish over a love-sick play, or to ogle, with idle gaze, a favoured cavalier. I might have supposed, too, that the men were supremely blessed by this dalliance with the sex, and considered themselves in perfect elysium when they could divide their attention between their sirens, their horses, and the card-table;—but in the privacy of this dwelling, I learned to estimate the love and regard between parents and children; the beautiful benevolence of ancient friendship; the universal respect for genius; and, besides, had

frequent occasion to notice the expanding spirit, ardent patriotism, desire of cultivation, and quick talent, which embellish the Mexican character.

"It must not be said that I am estimating a country by one example;—I am as far from so partial a judgment, as the opponents of Mexico are from a just one on their side of the question. It is true, that this family afforded me an extensive field of observation, but it chiefly served to stimulate my attention and inquiries elsewhere; and I can frankly declare, that wherever I observed, I invariably found the same qualities of head and heart. It is this *heart* that is in fact the great characteristic of Mexicans, and especially of their females. There is a noble naturalness, an antique generosity about them, which is the parent of a multitude of virtues, and it is by an abandonment of themselves to *impulses*, that so much irregularity and indiscretion have been frequently manifested, both in politics and society.

"I have said that the Mexicans are a people of quick talent, and my remark is borne out by the observation of all foreigners. They are quick to apprehend, quick of study, and quick in mastering a subject; but this very facility, joined with their impulsiveness, is often fatal to their enduring application and progress.

"I came among these people an entire stranger, without especial claims on their attention, and studious to avoid that bill of exchange hospitality, which is the result of introductory letters from former, and, perhaps, forgotten acquaintances. Yet mingling freely among all classes, and comparing them now—when gratitude for acts of kindness has been long yielded and the annoyance of petty impertinences forgotten—I have none but kindly recollections of the people, and none but favourable impressions of the mass of a society, in which I had been taught to believe that I should be held in utter antipathy as an heretical stranger.

"There are in Mexico, as in all other countries, specimens of egotism, selfishness, haughtiness, ill-breeding, and loose morals, both among the men and the women; but, although we find these floating like bubbles on the *top* of society, they must not therefore be considered the characteristics of the country. A nation in which 'revolutions and counter-revolutions are events of almost daily occurrence, is naturally prolific in desperate and crafty political adventurers,' and dissimulation and stratagem may, in time, form the chief element of the character of such a people;—yet such, it is hoped, is not to be the corrupting fate of Mexico.

"The idea that large social entertainments require great magnificence and lavish expense, deprives the Mexicans, in their towns, of many of those agreeable gatherings which fill up so pleasantly our winter nights and autumn evenings; but it is *on their haciendas or plantations that their hospitality is most distinguished*. Nothing is withheld from you; their establishments are placed at your entire control, and the welcome is as sincere as it is hearty and cheerful.

"That they are brave none will doubt, who read the history of their War of Independence, although the bad discipline (especially of their officers) has prevented the very eminent exhibition of this quality in their foreign battles. In fact, regard them in any way, and they will be found to possess the elements of a fine people who want but peace and the stimulus of foreign emulation, to bring them forward among the nations of the earth with great distinction.

"Their geographical position, however, is very unfavourable for this emulative stimulus. They are placed among the mountains, on an isthmus connecting two large continents, while their territory is washed by two seas. They are cut off by a large belt of savage country from us at the north, and the communication with Europe is both distant and uncertain. They have a small population, spread over an immense territory, and want, therefore, both the constant comparison of the intellect of other nations, and social compacting or aggregation among themselves. I can (from personal experience) state how disagreeable is this want of intercourse with the rest of the world. There is intelligence from the United States, perhaps, once a month, and about as often from Europe. The information brought by these arrivals, passes chiefly into the hands of the merchants—and, after a while, is gradually translated in fragments for some of the meagre newspapers, which treat you, months afterward, to a *refacciamento* of the stories or improvements that you had already forgotten. In this respect, our community of

language with Great Britain is of vast importance to us. England acts the part of an editor for the United States. She collects the news, the literature, the progressive inventions, and the genius of the old world, with unparalleled activity;—and we are always, at furthest, but twelve days behind her in diffusing these results among the seventeen millions of our own people. But it may be feared, that it will be long before Mexico imitates our example. Spain is not an England in intellectual energy or advancement; and the day has not yet arrived in Mexico when a work in two volumes can be printed, bound, and distributed to her chief cities within twenty-four hours after its reception from Europe.

“I am afraid the tendency of our sister republic is too much toward the opposite extreme. She has not disenthralled herself from the Spanish bigotry which inculcated the idea that a nation must do all for herself, without a commercial marine of her own to carry on a well-regulated commerce. This seems as likely to make boors of the people who practise it, as seclusion is calculated to make ascetics of those who refuse to mingle with the world, and improve their spirits by a free interchange of opinions and feelings.

CARME.—“Passing westward, toward the Paseo Nuevo from the Alameda, you cross the square in front of the Accordada, the common prison of the capital. In the front of one of its wings a low-barred window is constantly open, and within, on an inclined plane, are laid the dead bodies found daily within the limits of the city. It is almost impossible to take your morning walk to the adjoining fields, without seeing one, and frequently two corpses, stretched bleeding on the stones. These are the victims of some sudden quarrel, or unknown murder during the night; and all who miss a friend, a parent, or a brother, resort to these iron bars to seek the lost one. It is painful to behold the scenes to which this melancholy assemblage frequently give rise, and hear the wails of sorrow that break from the homeless orphan, whose parent lies murdered on the stones of the dead-house.

“Yet this is scarcely more shocking than the scenes presented by the *living*, within the walls of the loathsome prison. A strong guard of military is stationed at the gate, and you enter, after due permission from the commanding officer. A gloomy stair leads to the second story, the entrance to which is guarded by a portal massive enough to resist the assault of a powerful force. Within, a lofty apartment is filled with the officers of the prison and a crowd of subalterns, engaged in writing, talking, and walking—amid the hum of the crowd, the clank of chains, the shouts of prisoners, and the eternal din of an ill-regulated establishment.

“Passing through several iron and wood-barred gates, you enter a lofty corridor, running around a quadrangular court-yard, in the centre of which, beneath, is a fountain of troubled water. The whole of this area is filled with human beings—the great congress of Mexican crime—mixed and mingling, like a hill of busy ants swarming from their sandy caverns. Some are stripped and bathing in the fountain; some are fighting in a corner; some making baskets in another. In one place, a crowd is gathered around a witty story-teller, relating the adventures of his rascally life. In another, a group is engaged in weaving with a hand-loom. Robbers, murderers, thieves, ravishers, felons of every description, and vagabonds of every aspect, are crammed within this court-yard; and, almost free from discipline or moral restraint, form, perhaps, the most splendid school of misdemeanour and villainy on the American continent.

“Below, within the corridor of the second story—from which I have described the view of this wretched mass of humanity—a rather better sort of criminals are kept; and yet, even here, many were pointed out to me as being under sentence of death, who still went about entirely without restraint.

“In one corner of the quadrangle is the *chapel*, where convicts for capital offences are condemned to solitude and penance, during the three last days of their miserable life; and, at a certain hour, it is usual for all the prisoners to gather in front of the door, and chant a hymn for the victim of the laws. It is a solemn service of crime for crime.

“I did not see the prison for women, but I am told it is much the same as the one I have just described. About 100 of the men, chained in pairs like galley-slaves, are driven daily into the streets, under a strong guard, as scavengers; and it seems to be the chief idea of the utility of prisons in Mexico, to support this class of coerced labourers.

"There can be no apology, at this period of general enlightenment in the world for such disgraceful exhibitions of the congregated vice of a country. Punishment, or rather incarceration, and labour on the streets, in the manner I have described, is, in fact, no sacrifice; both because public exhibition deadens the felon's shame, and because it cannot become an actual *punishment* under any circumstances of a *lépero*'s life. Indeed, what object in existence can the *lépero* propose to himself? His day is one of precarious labour and income; he thieves; he has no regular home, or if he has, it is some miserable hovel of earth and mud, where his wife and children crawl about with scarce the instinct of beavers. His food and clothing are scant and miserable. He is without education, or prospect of improvement. He belongs to a class that does not *rise*. He dulls his sense of present misery by intoxicating drinks. His quick temper stimulates him to quarrel. His sleep is heavy and unrefreshing, and he only rises to a day of similar uncertainty and wickedness. What, then, is the value of life to him, or to one like him? Why toil? Why not *steal!* What shame has he? *Is the prison, with certainty of food—more punishment than the free air, with uncertainty?* On the contrary, it is a *lighter punishment*; and as for the degradation, he knows not how to estimate it.

"Mexico will thus continue to be infested with felons, as long as its prison is a house of refuge, and a comparatively happy home to so large a portion of its outcast population.*

"I have collected some statistical information on these subjects, which I think will be interesting in connexion with Mexican prisons, and prove how necessary it is, in the first place, to alter their whole system of coercive discipline; and, in the second, to strike immediately at the root of the evil, by improving the condition of the people—by educating, and proposing advantages to them, in the cultivation of the extensive tracts of country that now lie barren over their immense territory.

IMPRISONMENTS in Mexico for 1842.

NUMBER OF PRISONERS.	Men.	Women.
	number.	number.
During the first six months of 1842, there were imprisoned in the city of Mexico	3197	1427
During the second six months	2858	1279
Total of both sexes for 1842.....	6055	2706

"Without specifying *each* of the several crimes, for which these persons were committed to prison, or being able, from all the accounts furnished me, to state the exact number of those who were finally *convicted*, I will present some lists of the numbers imprisoned for the *chief* crimes, during the whole year.

C R I M E S.	Men.	Women.	Total.
	number.	number.	number.
1. Prostitution, adultery, bigamy, sodomy, incest	812	175	491
2. Robbery.....	1500	470	1970
3. Quarreling and wounding	2129	1104	3233
4. Quarreling and bearing arms, &c.....	612	444	1056
5. Homicide, attempt at homicide, and robbery and homicide.....	70	17	87
6. Rape and incontinence	65	21	86
7. Forgery	7	1	8
8. Gambling	3	0	3
Which, added together, give the frightful amount of...			6034

males and females, for the *higher* crimes and misdemeanors—leaving a balance of 1927 only, to be divided among the *lesser*. It should be stated, in addition to the above, that numbers were committed for *throwing dirt* on the clothes and faces of persons passing along the street; that 113 dead bodies were found; 17 individuals executed, and 894 sent to the hospital.

"The sum of 4121 dollars is expended in salaries of officers for this institution, and 30,232 dollars for the support of the prisoners.

* "As an evidence of the little value these *léperos* place upon their lives,—an old resident in Mexico told me, that he had once been the witness of a street-fight between two women, which resulted in the use of knives, and the ripping of one's belly, so that her bowels were exposed. The wound was not fatal, and as soon as she had slightly recovered from the loss of blood, while the attendants were preparing a litter, she drew forth a *cigarrito* from her bosom, obtained a light from a bystander, and was borne off to the hospital, smoking as contentedly as if preparing for a *siesta*!"

CITY, AND DEPARTMENT, FORMERLY THE INTENDANCY, OF MEXICO.

THE population of the former intendancy of Mexico was, in 1803, stated to be 1,511,800 souls. In the department which comprises a lesser extent of territory, the population in 1842 was enumerated at 1,389,520.

The whole of the country which was included under the intendancy is situated under the torrid zone. It extended from the 16 deg. 34 min. to the 21 deg. 57 min. of north latitude. It was bounded on the north by the intendancy of San Luis Potosi, on the west by the intendancies of Guanajuato and Valladolid, and on the east by those of Vera Cruz and La Puebla de los Angelos. It is washed towards the south by the South Sea, or Pacific Ocean, from Acapulco to Zaca-tula. More than two-thirds of the area of this territory are mountainous.

The Valley of Mexico, or Tenochtitlan, of which M. Humboldt has published a very minute map, is situated in the centre of the *cordillera* of Anahuac, on the ridge of the *porphyritical* and *basaltic amygdaloid* mountains, which run from the south-south-east to the north-north-west. This valley is of an oval form.

Six great roads were made to cross the *cordillera* which encloses the valley, of which the medium height is 3000 metres (or 9842 feet) above the level of the ocean. 1. The road from Acapulco to Guchilaque and Cuervaracca by the high summit, called La Cruz del Marques (alluding to Hernan Cortez, Marques de Valle de Oaxaca). 2. The road of Toluca by Tianguillo and Lerma, a magnificent causeway, not sufficiently to be admired, constructed with great art, partly over arches. 3. The road of Queretaro, Guanajuato, and Durango [*el camino de tierra adentro*], which passes by Guautitlan, Huehuetoca, and the Puerto de Reyes, near Bata, through hills scarcely eighty metres (or 262 feet) above the pavement of the great square of Mexico. 4. The road of Pachuco, which leads to the celebrated mines of *real* del Monte, by the Cerro Ventoso, covered with oak, cypress, and rose-trees, almost continually in flower. 5. The old road of La Puebla, by San Bonaventura and the Llanos de Apan. And, 6. the road of La Puebla by Rio Frio and Tesmelucos, south-east from the Cerro del Telapon, of which the distance from the Sierra Nevada, as well as that from the Sierra Nevada (Iztaccihuatl) to the great volcano (Popocatepetl), served for bases to the trigonometrical operations of MM. Velasquez and Costanzo.—*Alcedo*.

From the capital of Mexico being described as a city built in the midst of a lake, and connected with the continent by dikes, Alcedo observes, "Those who look at Humboldt's map will be no doubt astonished on seeing that the centre of the present city is 4500 metres (or 14,763 feet) distant from the Lake of Texcoco, and more than 9000 metres, or 29,527 feet from the Lake of

Chalco ; but the city has certainly not changed its place, for the cathedral of Mexico occupies exactly the ground where the temple of Huitzilopochtli stood and the present street of Tacuba is the old street of Tlacopan, through which Cortez made his famous retreat in the fatal night of the 1st of July, 1520, which still goes by the name of *noche triste*. The difference of situation between the old maps and those published by Humboldt, arises solely from the diminution of water in the Lake of Tezcoco.

A letter addressed by Cortez to the Emperor Charles V., dated 30th of October, 1520, gives a description of the Valley of Mexico. "The province in which the residence of this great lord Moctezuma is situated," says Cortez, "is circularly surrounded with elevated mountains, and intersected with precipices. The plain contains near seventy leagues in circumference, and in this plain are two lakes, which fill nearly the whole valley ; for the inhabitants sail in canoes for more than fifty leagues round." (He speaks only of two lakes, for he knew but imperfectly those of Zumpango and Xaltocan, between which he hastily passed in his flight from Mexico to Tlascala, before the battle of Otumba.) "Of the two great lakes of the Valley of Mexico, the one is fresh and the other salt-water. They are separated by a small range of mountain (the conical and insulated hills near Iztapalapan) ; these mountains rise in the middle of the plain, and the waters of the lake mingle together in a strait between the hills and the high *cordillera* (undoubtedly the east declivity of Cerros de Santa Fé). The numerous towns and villages constructed in both of the two lakes carry on their commerce by canoes, without touching the continent. The great city of Temixtitlan or Tenochtitlan is situated in the midst of the salt-water lake, which has its tides like the sea ; and from the city to the continent there are two leagues, whichever way we wish to enter. Four dikes lead to the city : they are made by the hand of man, and are of the breadth of two lances. The city is as large as Seville or Cordova. The streets, I merely speak of the principal ones, are very narrow and very long ; some are half-dry and half-occupied by navigable canals, furnished with very well-constructed wooden-bridges, broad enough for ten men on horse-back to pass at the same time. The market-place, twice as large as that of Seville, is surrounded with an immense portico, under which are exposed for sale all sorts of merchandise, eatables, ornaments made of gold, silver, lead, pewter, precious stones, bones, sheels, and feathers ; delft-ware, leather, and spun-cotton. We find hewn stones, tiles, and timber fit for building. There are lanes for game, others for roots and garden-fruits ; there are houses where barbers shave the head (with razors made of obsidian) ; and there are houses resembling our apothecary shops, where prepared medicines, unguents, and plasters are sold. There are houses where drink is sold. The market abounds with so many things, that I am unable to name them all to your highness. To avoid com-

fusion, every species of merchandise is sold in a separate lane; every thing is sold by the yard, but nothing has hitherto been seen to be weighed in the market. In the midst of the great square is a house, which I shall call *l'audiencia*, in which ten or twelve persons sit constantly for determining any disputes which may arise respecting the sale of goods. There are other persons who mix continually with the crowd, to see that a just price is asked. We have seen them break the false measures which they had seized from the merchants."

Such was the state of Tenochtitlan in 1520. Humboldt sought in vain in the archives of the family of Cortez, preserved at Mexico in the Casa del Estado, for the plan which he ordered to be drawn up of the environs of the capital, and which he sent to the emperor, as he says, in his third letter published by Cardinal Lorenzana. The Abbé Clavigero has ventured to give a plan of the Lake of Tezcoco, such as he supposes it to have been in the sixteenth century. This sketch, though inaccurate, is thought preferable to that given by Robertson, and other European authors. Humboldt has drawn on the map of the Valley of Tenochtitlan the old extent of the salt-water lake, such as he conceived it from the historical account of Cortez, and some of his contemporaries. In 1520, and long after, the villages of Iztapalapan, Coyohuacan (improperly called Cuyacan), Tacubaja, and Tacuba, were quite near the banks of the Lake of Tezcoco. Cortez says expressly, "That the most part of the houses of Coyohuacan, Culuacan, Chulubuzco, Mexicalzingo, Iztapalapan, Cuitaguaca, and Mizqueque, were built in the water on piles, so that frequently the canoes could enter by an under-door." The small hill of Chapultepec, on which the viceroy, Count Galvez, constructed a castle, was no longer an island in the Lake of Tezcoco in the time of Cortez. On this side, the continent approached to within about 3000 metres (or 9842 feet) of the city of Tenochtitlan, consequently the distance of two leagues indicated by Cortez in his letter to Charles V. is not altogether accurate: he ought to have retrenched the one-half of this, excepting, however, the part of the west-side at the small porphyritical hill of Chapultepec. We may well believe, however, that this hill was, some centuries before, also a small island, like the Fenol del Marques, or the Penol de los Banos. It appears extremely probable, from geological observations, that the lakes had been on the decrease long before the arrival of the Spaniards, and before the construction of the canal of Huehuetoca.—*Alcedo:*

The old city of Mexico communicated with the continent by the three great dikes of Tepejacac (Guadalupe), Tlacopan (Tacuba), and Iztapalapan. Cortez mentions four dikes, "because he reckoned, without doubt, the causeway which led to Chapultepec. The Calzada of Iztapalapan had a branch which united Coyohuacan to the small fort Xaloc, the same in which the Spaniards were entertained at their first entry by the Mexican nobility." Robertson speaks of a

dike which led to Tezcoco, but such a dike never existed, on account of the great distance, and the great depth of the east part of the lake.

The city of Tenochtitlan was divided into four quarters, called Teopan, or Xochimilca, Atzacualco, Moyotla, and Tlaguechiuchan, or Cuepopan. The old division was preserved in the limits assigned to the quarter of St. Paul, St. Sebastian, St. John, and St. Mary; and the present streets have for the most part the same direction as the old ones, nearly from north to south and from east to west, though more properly from the south 16 deg. west to north 74 deg. east, at least towards the convent of St. Augustin, where Humboldt took his azimuths. The direction of the old streets was undoubtedly determined by that of the principal dikes. Now, from the position of the places where these dikes appear to have terminated, it is improbable that they represented exactly meridians and parallels. But what gives the new city, as we have already observed, a peculiar and distinctive character, is that it is situated entirely on the continent, between the extremities of the two lakes of Tezcoco and Xochimilco, and that it only received, by means of canals, the fresh water of the Xochimilco.—*Alcedo*.

"Many circumstances have contributed to this order of things. The part of the salt-water lake between the south and west dikes was always the shallowest. Cortez complained that his flotilla, the brigantines which he constructed at Tezcoco, could not, notwithstanding the openings in the dikes, make the circuit of the besieged city. Sheets of water of small depth became insensibly marshes, which, when intersected with trenches or small defluous canals, were converted into *chinampas* and arable land.

"Of the five lakes of the Valley of Mexico, the Lake of Tezcoco is most impregnated with muriate and carbonate of soda. The nitrate of barytes proves that this water contains no sulphate in dissolution. The most pure and limpid water is that of the Lake of Xochimilco, the specific weight of which Humboldt found to be 1.0009, when that of water distilled at the temperature of 18 deg. centigrade, or 54 deg. Fahrenheit, was 1.000, and when water from the Lake of Tezcoco was 1.0215. The water of this last lake is heavier than that of the Baltic Sea, and not so heavy as that of the ocean, which, under different latitudes, has been found between 1.0269 and 1.0285. The quantity of sulphuretted hydrogen which is detached from the surface of all the Mexican lakes, and which the acetate of lead indicates in great abundance in the lakes of Tezcoco and Chalco, undoubtedly contributes in certain seasons to the unhealthiness of the air of the valley. Intermittent fevers, however, are very rare on the banks of these very lakes."—*Alcedo*.

Humboldt says, "two sorts of hewn stone, the porous amygdaloid called *tetzontli*, and especially a porphyry of vitreous feld-spa without any quartz, give to the Mexican buildings an air of solidity, and sometimes even magnificence. There are none of those wooden balconies and galleries to be seen

which disfigure so much all the European cities in both the Indies. The bala-trades and gates are all of Biscay iron, ornamented with bronze, and the houses, instead of roofs, have terraces, like those in Italy and other southern countries.

"The edifice destined to the school of mines, for which the richest individuals of the country furnished a sum of more than 3,000,000 of francs, or 124,800L sterling, would adorn the principal places of Paris or London. Two great palaces were recently constructed by Mexican artists, pupils of the academy of fine arts of the capital. One of these palaces, in the quarter Della Traspana, exhibits in the interior of the court a very beautiful oval peristyle of coupled columns. The traveller justly admires a vast circumference paved with porphyry flags, and enclosed with an iron railing, richly ornamented with bronze, containing an equestrian statue of King Charles IV. placed on a pedestal of Mexican marble, in the midst of the *plaza mayor* of Mexico, opposite the cathedral and the viceroy's palace. This colossal statue was executed at the expense of the Marquis de Branciforte, formerly viceroy of Mexico, brother-in-law of the Prince of Peace. It weighs 450 quintals, and was modelled, founded, and placed by the same artist, M. Tolsa, whose name deserves a distinguished place in the history of Spanish sculpture."—*Humboldt's New Spain*.

Humboldt, who had seen successively, within a very short space of time, Lima, Mexico, Philadelphia, Washington, Paris, Rome, Naples, and the largest cities of Germany, remained nevertheless smitten with a recollection of the grandeur of this latter city, a circumstance which he attributes principally to the majestic character of its situation and the surrounding scenery.—*Alcedo*.

According to the same authority, "Large avenues of elms and poplars lead in every direction to the capital; and two aqueducts, constructed over arches of very great elevation, cross the plain, and exhibit an appearance equally agreeable and interesting. The magnificent convent of Nuestra Senora de Guadalupe appears joined to the mountains of Tepeyacac, among ravines which shelter a few date and young *yuca* trees. Towards the south the whole tract between San Angel, Tacabaya, and San Agustin de las Cuevas, appears an immense garden of orange, peach, apple, cherry, and other European fruit-trees."

Alcedo, in the edition of 1817, observes, "The city of Mexico is also remarkable for its excellent police. The most part of the streets have very broad pavements; and they are clean and well lighted. These advantages are the fruits of the activity of the Count de Revillagigedo, who on his arrival found the capital *extremely dirty*.

"Water is everywhere to be had in the soil of Mexico, a very short way below the surface, but it is brackish, like the water of the Lake of Texcoco. The two aqueducts already mentioned, by which the city receives fresh water, are monuments of modern construction worthy of the traveller's attention. The springs of potable water are situated to the east of the town, one in the insulated hill of Chapultepec, and the other in the *cerros* of Santa Fé, near the

cordillera, which separates the Valley of Tenochtitlan from that of Lerma and Toluca. The arches of the aqueduct of Chapultepec occupy a length of more than 3300 metres, or 10,826 feet.

The enumeration in 1790, by orders of the Count de Revillagigedo, gave a result of only 112,926 inhabitants for the city; but this result was considered too low by Alcedo, who says, "The regular troops and militia in garrison in the capital are composed of from 5000 to 6000 men in arms. We may admit with great probability that the actual population consists of

2,500 white Europeans.
65,000 white Creoles.
33,000 indigenous (copper-coloured).
26,500 Mestizoes, mixture of whites and Indians.
10,000 Mulattoes.

137,000 inhabitants.

"There are consequently in Mexico 69,500 men of colour, and 67,500 whites: but a great number of the Mestizoes are almost as white as the Europeans and Spanish Creoles!"

"In the twenty-three male convents which the capital contains there are nearly 1200 individuals, of whom 580 are priests and choristers. In the fifteen female convents there are 2100 individuals, of whom nearly 900 are professed *religieuses*.

"The clergy of the city of Mexico then was, and is now, extremely numerous, though less numerous by one-fourth than at that period at Madrid. The enumeration of 1790 gives

In the convents of monks.	{	573 priests and choristers. 59 novices. 235 lay brothers.	}	867
In the convents of nuns.	{	888 professed <i>religieuses</i> . 35 novices.	}	923
Prebendaries				26
Parish priests (<i>curés</i>)				16
Curates				43
Secular ecclesiastics				517
	Total			2392

and without including lay-brothers and novices, 2068."

Alcedo, in comparing this capital with those of Europe in the beginning of the present century, says, "Mexico is the most populous city of the new continent. It contains only 40,000 inhabitants fewer than Madrid; and as it forms a great square, of which each side is nearly 2750 metres, or 9021 feet, its population is spread over a great extent of ground. Its greatest length is nearly 3900 metres (12,794 English feet); of Paris 8000 metres (26,246 English feet)."

The Count de Revillagigedo set on foot accurate researches into the consumption of Mexico. The following table was drawn up in 1791:—

CONSUMPTION of Mexico.

ARTICLES OF CONSUMPTION.	Quantity.	ARTICLES OF CONSUMPTION.	Quantity.
1. Matables :—		2. Grain :—	
Beeves.....	number. 16,300	Maize, or Turkey wheat, cargas of three fanegas.....	number. 117,324
Calves.....	450	Barley, cargas.....	40,219
Sheep.....	278,923		
Hogs.....	50,676		
Kids and rabbits.....	24,000		
Fowls.....	1,255,310	3. Liquid Measure :—	
Ducks.....	125,000	Wheat flour, cargas of 12 arrobas.....	180,000
Turkeys.....	205,000	Pulque, the fermented juice of the agava, cargas.....	294,700
Pigeons.....	65,300	Wine and vinegar, barrels of 48 arrobas.....	4,507
Partridges.....	140,000	Brandy, barrels.....	12,000
		Spanish oil, arrobas of 25 lbs.....	5,585

" Supposing at that time, with M. Peuchet, the population of Paris to be four times greater than that of Mexico, we shall find that the consumption of beef is nearly proportional to the number of inhabitants of the two cities, but that that of mutton and pork is infinitely more at Mexico. The difference is as follows :

ANIMALS.	CONSUMPTION.		Quadruple of the Consumption of Mexico.
	Of Mexico.	Of Paris.	
Beeves.....	number. 16,300	number. 70,000	number. 65,200
Sheep.....	273,000	350,000	1,116,000
Hogs.....	50,100	35,000	200,400

" M. Lavoisier found by his calculations that the inhabitants of Paris consumed annually, in his time, 90,000,000 lbs. of animal food of all sorts, which amounts to 163 lbs. ($79\frac{1}{6}$ kilogrammes or $175\frac{9}{10}$ lbs. avoirdupois) per individual. In estimating the animal food yielded by the animals designated in the preceding table, according to the principles of Lavoisier, modified according to the localities, the consumption of Mexico in every sort of meat is 26,000,000 lbs., or 189 lbs., or 204 lbs. avoirdupois, per individual. This difference is so much the more remarkable as the population of Mexico includes 33,000 Indians, who consume very little animal food.

" The consumption of wine had formerly greatly increased since 1791, especially since the introduction of the Brownonian system in the practice of the Mexican physicians. These wines, however, are only drunk by the wealthy class of the inhabitants. The Indians, Mestizos, Mulattoes, and even the greatest number of white Creoles, prefer the fermented juice of the agave, called *pulque* of which there is annually consumed the enormous quantity of 44,000,000 bottles, containing 48 French cubic inches each, or 58,141 cubic inches English. The immense population of Paris only consumed annually in the time of M. Lavoisier 281,000 muids of wine, brandy, cyder, and beer, equal to 80,928,000, bottles.

" The consumption of bread at Mexico is equal to that of the cities of Europe. This fact is so much the more remarkable, as at Caraças, at Cumana, and

Carthagena de las Indias, and in all the cities of America situated under the torrid zone, but on a level with the ocean, or very little above it, the Creole inhabitants live on almost nothing but maize bread, and the *jatropha manihot*. If we suppose, with M. Arnould, that 325 lbs. of flour yield 416 lbs. of bread, we shall find that the 130,000 loads of flour consumed at Mexico, yield 49,900,000 lbs. of bread, which amounts to $391\frac{8}{10}$ lbs. avoirdupois, per individual of every age. Estimating the habitual population of Paris at 547,000 inhabitants, and the consumption of bread at 206,788,000 lbs., we shall find the consumption of each individual in Paris $377\frac{9}{10}$ lbs. French, or $406\frac{9}{10}$ lbs. avoirdupois." At Mexico, the consumption of maize is almost equal to that of wheat. It is the food most in request among the Indians.

The market of Mexico has always been celebrated as richly supplied with eatables, particularly with roots and fruits of every sort. "It is a most interesting spectacle, which may be enjoyed every morning at sunrise, to see these provisions and a great quantity of flowers, brought in by Indians in boats, descending the canals of Istacalco and Chalco. The greater part of these roots is cultivated on the *chinampas*, called by the Europeans floating gardens. There are two sorts of them, of which the one is moveable and driven about by the winds, and the other fixed and attached to the shore. The first alone merit the denomination of floating gardens, but their number is daily diminishing.

The invention of *chinampas* had its origin in the local situation of a people, who, surrounded with enemies, were compelled to live in the midst of a little lake abounding in fish, who were forced to fall upon every means of procuring subsistence. "The oldest *chinampas* were merely bits of ground joined together artificially, and dug and sown upon by the Aztecs. These floating islands are to be met with in all the zones. Humboldt saw them in the kingdom of Quito, on the river Guayaquil, of eight or nine metres (or 26 or 29 feet) in length, floating in the midst of the current, and bearing young shoots of bambusa, pistia stratiotes, pontederia, and a number of other vegetables, of which the roots are easily interlaced. He found also in Italy, in the small *lago di aqua solfa* of Tivoli, near the hot baths of Agrippa, small islands formed of sulphur, carbonate of lime, and the leaves of the *ulva thermalis*, which change their place with the smallest breath of wind. Floating gardens are, as is well known, also to be met with in the rivers and canals of China, where an excessive population compels the inhabitants to have recourse to every shift for increasing the means of subsistence.

Masses of tufted earth, carried away from the banks, have probably originated the idea of artificial *chinampas*; but the industry of the Aztecs gradually carried this system of cultivation to perfection. "The floating gardens, of which very many were found by the Spaniards, and of which many still (1817) exist in the Lake of Chalco, were rafts formed of reeds (*totoro*), rushes, roots, and branches of brushwood. The Indians cover these light and well-connected materials

with black mould, naturally impregnated with muriate of soda. The soil is gradually purified from this salt by washing it with the water of the lake ; and the ground becomes so much the more fertile as this lixiviation is annually repeated. This process succeeds even with the salt-water of the Lake of Tezcoco, because this water, by no means at the point of its saturation, is still capable of dissolving salt as it filtrates through the mould. The *chinampas* sometimes contained even the cottage of the Indian, who acts as guard for a group of floating gardens. They are towed or pushed with long poles when wished to be removed from one side of the banks to the other.

“ In proportion as the fresh-water lake has become more distant from the salt-water lake, the moveable chinampas have been fixed. Every chinampa forms, or formed, a parallelogram of 100 metres in length, and from five to six metres (or 328 by 16 or 19 feet) in breadth. Narrow ditches, communicating symmetrically between them, separate these squares. The mould fit for cultivation, purified from salt by frequent irrigations, rises nearly a metre, or 3.28 feet above the surface of the surrounding water. On these chinampas are cultivated beans small peas, pimento (*chilé, capsicum*), potatoes, artichokes, cauliflowers, and a great variety of other vegetables. The edges of these squares are generally ornamented with flowers, and sometimes with a hedge of rose bushes.

“ The promenade in boats around the chinampas of Istacaleo is one of the most agreeable that can be enjoyed in the environs of Mexico. The vegetation is extremely vigorous on a soil continually refreshed with water.”—*Humboldt. Thomson's Alcedo.*

The modern city of Mexico has, after the visit of Humboldt, been well described by Mr. Ward. It is situated in a plain, near lakes, and surrounded by mountains, at an elevation of 7400 feet above the level of the sea, in latitude 19 deg. 26 min. north; longitude 101 deg. 26 min. west. The population is said now to amount to nearly 200,000 of all races. Its streets intersect each other generally at right angles. On looking down on it from the neighbouring heights, it has been compared to a chessboard.

Although Humboldt describes it as “undoubtedly the finest city built by Europeans in either hemisphere,” we certainly doubt the truth of this assertion. Many of the public edifices are certainly magnificent, and the cathedral and churches contain gorgeous embellishments and treasures. There are fourteen parish churches, six additional churches, thirteen monasteries and seminaries, twenty-two nunneries, one university, six colleges, and five hospitals.

The palace of the archbishop is a plain edifice. That of the president is said to have been equally plain, and until 1842, was wretchedly furnished. After the accession of Santa Anna, Mr. Mayer says of the grand saloon in this palace:—

“ In this spacious and well-proportioned apartment they have gathered a quantity of gorgeous furniture, and placed, on a platform at the northern end, under a crimson canopy, a magnificently carved and gilded throne. Various flags,

alleged to have been taken from the Texans, in battle, are affixed to staffs extending from the cornice. The walls are covered with large French mirrors, and the deep windows are festooned with the most tasteful upholstery of French artistes. I have wandered over the whole of this immense pile of edifices, but I recollect nothing else about it worthy of notice. The private apartments of General Santa Anna are plain, neat, and tasteful, and a full-length portrait of General Washington adorns an obscure chamber."

There is a senate chamber and chamber of deputies behind the palace, near which also is the botanic garden—of small extent. The mint is on the north of the Palace Square, near which is the *aduana* or custom-house. The Monte Pio, or national pawnbroking establishment, is in the palace—said to be erected by Cortez: it is founded very much on the same principle as that of Paris. Mr. Mayer says:—

" You may form an idea of the number and variety of persons who derive assistance from the Monte Pio, by a walk through its extensive apartments. You will there find every species of garment, from the tattered reboso of the *lepera* to the lace mantilla of the noble dame; every species of dress, from the blanket of the beggar, to the military cloak and jewelled sword of the impoverished officer; and, as to jewels, Aladdin would have had nothing to wish among the blazing caskets of diamonds for which the women of Mexico are proverbial."

The Mineria, or School of Mines, is one of the most splendid edifices in America. " It was planned and built by Tolsa, the sculptor of the statue of Charles IV.—and is an immense pile of stone, with courts, stairways, saloons, and proportions that would adorn the most sumptuous palaces in Europe. But this is all. The apparatus is miserable; the collection of minerals utterly insignificant; the pupils few; and, among the wastes and solitude of the pile, wanders the renowned Del Rio—one of the most learned naturalists of this hemisphere—ejaculating his sorrows over the departed glory of his favourite schools."

An edifice used for the manufacture of tobacco, situated at the north-western corner of the city, and erected by the old Spanish government, has been converted into a citadel.

The Academy of Fine Arts, so highly admired by Humboldt, has, like the Mineria, university, and museum, become almost untenanted. Under the old Spanish government the academy was really a school of arts, and supplied at great expense with casts of the most celebrated statuary of Europe. There are a few private cabinets of pictures, &c. In the streets, wealth and poverty exhibit their extremes.

" Go where you will," says Mr. Mayer, " in this city you are haunted by beggars. Beggary is a *profession*; but it is not carried to quite the extent that it is in some of the Italian states, and especially the Sicilian dominions.

" The capital employed in this business is blindness, a sore leg, a decrepit father

or mother, or a helpless child; in the latter case, a stout hearty boy usually straps the feeble one on his back, and runs after every passer beseeching succour. With such a stock in trade, and a good sunny corner, or wall of a church door, the petitioner is set up for life. Placed in so eligible a situation, their cry is incessant from morning to night, ‘Senores amigos, por el amor de dios,’ ‘for the love of the blessed Virgin!’ ‘by the precious blood of Christ!’ ‘by the holy mystery of the Trinity!’ repeated with many variations between their eternal scratchings, winking of lids over sightless balls, and the display of maimed limbs and every species of personal deformity. There is no ‘poor-house’ in Mexico, to which such vagrant wretches are forced to go.’

There are, according to Mr. Mayer, scarcely any hotel accommodations in the city of Mexico. The best being a miserable establishment, only a few removes from the *Fondas* and *Mesones* of the olden time. This want of accommodation he attributes to “the fact that *travelling* is only of a recent date; a new invention, as it were, in Mexico. In former times, articles of merchandise were sent under the care of arrieros, who were satisfied with the accommodation of the ordinary tavern; to wit, four walls, covered with a roof, in which they might stretch their mats, pile their saddles, and sleep, living the while on tortillas, onions, pulque, and jerked meats. Whenever the better classes found it needful to visit the capital, the house of some friend was open to them, and thus hospitality prevented the creation of an honest race of Bonifaces to welcome the weary wayfarer.”

Mr. Mayer, like others who have visited Mexico, describes the religious ceremonies, and especially the festival of the Virgin of Guadaloupe, the patron saint of Mexico, whose shrine is richer than that of St. John Nepomuc, at Prague. Of Mexican domestic character, among the families of the higher class, he speaks favourably, although he says “too much time is devoted to the morning, the evening drive, and the theatre.”

“The universal conclusion of the day with a fashionable lady in Mexico, is the theatre. She begins with mass, to which she walks in the morning with her mantilla gracefully draped around her head, and falling in folds of splendid lace over her breast and shoulders. But the night must end in full dress at the opera or theatre. It is as regular and as much a matter of course as her meals.”

The houses of the Mexicans are usually built of the strongest materials, either brick or stone, and without much architectural pretension. They are erected around *patrios*, or court-yards, and are from thirty to forty feet front on the street—the grand saloon being generally the length of the whole house. On the ground-floor are the porter’s lodge, offices, and coach-house. “From this a flight of steps leads to an *entresol*, devoted to the domestics, while the upper story is universally the fashionable and best one. Here the family dwells in perfect seclusion from the street and neighbours, and the arcade which fronts their doors is filled with the choicest fruit and flower-trees in constant bloom. Above all this is the *azotea*, or flat paved roof, a delightful retreat on summer nights. The front windows of the

houses are all guarded by balconies covered with gaily-coloured awnings; and on days of festival, when filled with the gay throng of Mexican women, and hung with tapestry and velvet, they present a most brilliant appearance.

"The carriage, and ever-harnessed mules, stand constantly in the court-yard below; and the postillion is ready to mount and sally forth at a moment's notice until after dark, when the large front gate is closed, locked, and barred; and the house becomes as quiet and secure as a castle, with which no communication from without is permitted, until you tell your name, or signify to the porter the object of your visit. Until this ceremony has passed, no bolt is drawn in the wicket or latch raised to admit you; and the caution is extremely necessary, on account of the frequent robberies that have been committed by allowing unknown persons to enter after dark."

The "old school" says Mr. Mayer, "seems to have taken refuge among the Mexicans. They are formally, and I think, substantially, the politest people I have met with."

Mr. Mayer and others describing the out-door appearances of the population bring forward the *lépero* as conspicuous. He is described as a beggar, thief, porter, and in any character which his despicable condition permits.

The aguador or water-carrier is another peculiar character. His jars are suspended from his head. Indians from the country carry turkeys, chickens, and other birds in coops or cages, or earthenware, or fruit, around to sell. Others, men and women, drive asses about laden with vegetables, especially onions and radishes.

A tinkle of a bell at the door of the cathedral sacristy, and a roll of drums calling out the guard of honour at the palace-gate, give warning of a change of scene, and collect the multitude towards the spot. Another scene is described by Mr. Mayer:—

"Slowly issues a gaily-painted coach with glass windows on all sides, drawn by spotted mules; a priest in his vestments sits within; a band of boys walk on each side chanting a hymn; and in a moment a death-like stillness pervades the whole square. From the tradesman, selling his tapes under the Portales, to the thief, who has barely time to conceal the handkerchief in his dirty blanket, the whole crowd is uncovered and kneeling: the Host is passing to the house of some dying Catholic!"

"The carriage turns a corner, and the square is alive again; the tradesman to sell, the *lépero* to steal, and the lesson of death is forgotten for ever!"

The Mexican coaches are said still to be of the old heavy, almost globular form, suspended on clumsy carved and gaudy frame-work, dragged by mules almost hidden in leather and brass harness, bestridden by a postillion in leather embroidered jacket, short leggings, broad-brimmed hat, and long spurs. The military music of Mexico is highly praised by Mr. Mayer.

OLD CALIFORNIA.

CALIFORNIA, OLD, is a long narrow peninsula of North America, situated between latitudes 22 deg. 25 min. north, and about 32 deg. 30 min. north lat.; bounded on the east by a gulf of the same name, and on the west by the Pacific ocean, lying within the limits of Cape St. Lucas on the south, the gulf of the river Colorado on the east, and some point near St. Diego, west about 32 deg. 16 min. north on the Pacific, and Cape Blanco de San Sebastian, which is considered its west limit. Old California is about 720 miles in length from Cape San Lucas to St. Diego. Its width varies from thirty to 110 miles from the Gulf to the Pacific. Alcedo (in Thompson's edition, 1818), remarks, "The climate is various, according to the different heights of the land; but for the most part it is excessively hot. The ground is uneven, rough, and barren, full of ridges of mountains, stony and sandy places; lacking moisture, but abounding in mules, horses, and neat cattle, and all sorts of swine, goats, and sheep, which have multiplied in the same proportion as the dogs and cats introduced by the Spaniards. There is found in the woods a kind of animal called *taye*, about the size of a calf of a year and a half old, and very much resembling one; its head and skin being like those of a deer, its horns very thick, and similar to those of a ram; its hoof is large, round, and cleft like that of an ox; the tail is small, the flesh well tasted and delicate. There is also another animal very like a sheep, although somewhat larger; of these there are black and white, bearing quantities of wool very easy to be spun, and their flesh is very delicate. Here are also found deer, hares, rabbits, *berrendos*, and *coyotes*, a species of fox, and called by this name in Nueva Espana. In the *serrania*, or mountainous parts, there are wild hogs, cats, *tigers*, and a species of beaver. This country abounds in reptiles, as vipers, snakes of different sorts, scorpions, spiders, ants, lizards, and tarantulas; but it is free from bugs, fleas, and *niguanas*. Of birds, it produces turtle-doves, herons, quails, pheasants, partridges, geese, ducks, wild ducks, ring-doves, and some birds of prey, as sparrow-hawks, vultures, falcons, horned owls, eagles, and also jackdaws, those too which they call *zopilotes* in Nueva Espana, and others which they call *auras* (or West Indian crows), screech-owls, and different birds not known in any other parts. This country is extremely barren of wood; and only towards the cape of Sanducas, where the country is most level, fertile, and temperate, are there any trees to be found. Here, however, we have that peculiar tree called the *pitajia*, the branches of which are fluted, and grow up straight from its trunk, bearing no leaf; on the same branch hangs the fruit, having the rind covered with prickles; so that it appears to some to be a species of the *trinaciu* (thistle-plant), although the fruit is

whiter and more delicate : some produce fruit of a reddish, and some of a yellow tint, which is extremely well-flavoured, and is either sweet or a little acidulous ; the same is esteemed an excellent medicine in the venereal disease. From the fruit-trees aromatic gums are gathered in such abundance that they are mixed with grease for careening the bottoms of ships ; and from the crude root of the *mezcales* they compose the drink so-called. They have a sort of aloes, from strips of which they make nets ; and from other herbs, in a manner which is truly curious, they manufacture bowls and cruets to eat and drink out of. The Indians who inhabit the river Colorado, fabricate from the same herbs troughs or trays, which they call *coritas*, so large as to contain two hundred weight of maize. In them they carry by water, fruits and different articles from one shore to another. They have besides the alimentary herb called *yucas*, the Spanish potato, and the *gicamas*. This country produces also olives, figs, vines, wheat, maize, French beans, water-melons, melons, gourds, chickpeas, and all kinds of garden herbs, for which it is indebted to the Jesuits, who first planted them here. There are sufficient indications of the existence of every sort of metal. The quantity of fish and shell-fish found on its coasts is incredible ; it is of every description, and among others, the profusion of pilchards is most astonishing ; these being at certain seasons left in shoals dry upon the beach. Whales are also found here, and on the exterior coast shells of the most beautiful lustre may be collected, some of these being more brilliant than the finest mother-of-pearl, and covered with a blue similar to that of the most delicate lapis-lazuli. The pearl fisheries in these parts are much favoured by the shallowness of the water. This country was discovered in the year 1526 by the celebrated Hernan Cortéz, as he was endeavouring to find a passage from the North to the South Sea. Its conquest from that time had often been attempted, but without effect, until the year 1679, when, pursuant to the king's direction, it was invaded by Admiral Don Isidro Otundo, and was settled by the missionaries of the extinguished order of the Jesuits, under the direction of the Father Eusebio Francisco Kino, who first began to bring the infidel Indians under subjection."—*Alcedo*.

A chain of mountains runs through the centre of the peninsula, of which the most elevated, the Cerro de la Giganta, is from 1400 to 1500 metres (from 4692 to 4920 feet) in height, and appears of volcanic origin. At the foot of the mountains of California the soil is sand, or a stony stratum, on which cylindrical cacti (*organos del tunal*) shoot up to extraordinary heights. We find few springs ; and it is remarked by Alcedo, that the rock is naked where the water springs up, while there is no water where the rock is covered with vegetable earth. Wherever springs and earth occur together, the fertility of the soil is extraordinary. It was at these plains, of which the number is far from great, that the Jesuits established their missions. The maize, the *jatropha*, and the *dioscorea*, vegetate vigorously ; and the vine yields excellent grapes. In general, however, Old California, on account of the arid nature of the soil, and the want of water and vegetable earth in the

interior of the country, will never be able to maintain a great population any more than the northern part of Sonora, which is almost equally dry and sandy. Of all the natural productions of California, the pearls have, since the sixteenth century, been the chief attraction to navigators for visiting the coast of this desert country. They abound particularly in the southern part of the Peninsula, and the pearl-oyster is particularly to be found in the Bay of Ceralvo, and round the islands of Santa Cruz and San José. The most valuable pearls in the possession of the court of Spain were found in 1615 and 1665, in the expeditions of Juan Yturbi and Bernal de Pinadero. During the stay of the Visitador Galvez in California, in 1768 and 1769, a private soldier in the *presidio* of Loreto, *Juan Ocio*, was made rich in a short time by pearl fishing on the coast of Ceralvo. Since that period the numbers of pearls of California brought annually to market were almost reduced to nothing. The Indians and negroes, who followed the severe occupation of divers, have been frequently drowned, and often devoured by sharks. The divers have always been poorly paid by the whites. Near the town of Angelos there are said to be rich gold ores, and gold and silver are found in separate deposits. In California the Jesuits obtained, under the Spanish government, a complete ascendency over the soldiery posted at the *presidios*. By a *cedula real*, all the detachment of Loreto, even the captain, were placed under the command of the father at the head of the missions.

The village of Loreto was founded under the name of Presidio de San Dionisio, in 1697. In the reign of Philip V. especially after the year 1744, the Spanish monasteries in California were greatly increased. The Jesuits, in a very few years, built sixteen villages in the interior of the Peninsula. After their expulsion in 1767, California was confided to the Dominican monks of the city of Mexico, who were in every respect inferior to the Jesuits, and also to the Franciscans on the coasts of New California. In the north parts of Old California rain does not fall for nine or ten months. The gulf-shore is remarkably low, without harbours, and the water shallow. There are within the gulf several islands. The western coast is precipitous, rocky, dangerous to approach, and with but few places of anchorage. Fresh water is scarce, except at Port St. Quenten. Ruy de la Magdalena is another harbour.

NEW OR UPPER CALIFORNIA.

THE first permanent Spanish settlement was made in the year 1769, at the present town of San Diego, in latitude 32 deg. 41 min.

Upper, or New California, extends along the Pacific from about lat. 32 deg., to Cape Mendocino in latitude 40 deg. 19 min., and from the coast to the east, as

far as the boundaries of the north-eastern departments of New Mexico. The exact area of Upper California is undefined, and, excepting as far as the journeys under the exploring expedition, the interior has been but inadequately explored.

RIVERS.—The chief rivers of New California are the Sacramento and the Colorado. Among the harbours on this coast, the principal are the ports of San Francisco, situated on the bay of that name, Monterey and San Diego, and several others of lesser note. San Carlos de Monterey is the capital of California, and has a tolerable harbour.

SOIL AND CLIMATE.—The soil of New California, according to the description of Alcedo, is as well watered and fertile as that of Old California is arid and stony. It is, he says, one of the most picturesque countries which can be seen. The climate is much more mild there than in the same latitude on the east coast of the new continent. The sky is foggy, but the frequent fogs, which render it difficult to land on the coast of Monterey and San Francisco, give vigour to vegetation and fertilise the soil, which is covered with a black and spongy earth. In the eighteen missions which now (1812) exist in New California, wheat, maize, and haricots (*frijoles*), are cultivated in abundance. Barley, beans, lentiles, and *garbanzos*, grow very well in the fields in the greatest part of the province. Good wine is made in the villages of San Diego, San Juan Capistrano, San Gabriel, San Buenaventura, Santa Barbara, San Luis Obispo, Santa Clara, and San José, and all along the coast south and north of Monterey, to beyond the 37 deg. of latitude. The European olive is successfully cultivated near the canal of Santa Barbara, especially near San Diego, where an oil is made as good as that of the valley of Mexico, or the oils of Andalusia.

The population of New California, including the Indians only attached to the soil of the missions, was, according to Alcedo, in "1790, 7748 souls; in 1801, 13,668 souls; and in 1802, 15,562 souls.

"Thus the number of inhabitants has doubled in twelve years. Since the foundation of these missions, or between 1769 and 1802, there were in all, according to the parish registers, 33,717 baptisms, 8009 marriages, 16,984 deaths. In 1791, according to the tables published by M. Galiano, the Indians sowed in the whole province only 874 bushels of wheat, which yielded a harvest of 15,197 bushels. The cultivation doubled in 1802; for the quantity of wheat sown was 2089 bushels, and the harvest 33,576 bushels.

"The following statement, comprises the number of live stock in 1802: Oxen, 67,782; sheep, 107,172; hogs, 1040; horses, 2187; mules, 877.

"In 1791 there were only 24,958 head of black cattle (*ganado mayor*) in the whole of the Indian villages. The population of New California would have augmented still more rapidly if the laws by which the Spanish *presidios* have been governed for ages were not directly opposite to the true interests of both mother-country and colonies. By these laws the soldiers stationed at Monterey are not

permitted to live out of their barracks and to settle as colonists. The Indians who inhabit the villages of New California have been for some years employed in spinning coarse woollen stuffs called *frisadas*; but their principal occupation, of which the produce might become a very considerable branch of commerce, is the dressing of stag-skins. In the *cordillera* of small elevation which runs along the coast, as well as in the neighbouring *savannas*, there are neither buffalos nor elks; and on the crest of the mountains which are covered with snow in the month of November, the *berrendos*, with small chamois horns, feed by themselves. But all the forest and all the plains covered with *gramina*, are filled with flocks of stags of a most gigantic size, the horns of which are round and extremely large. Forty or fifty of them are frequently seen at a time: they are of a brown colour, smooth, and without spot. Their horns, which are not palmated, are nearly fifteen decimetres (four and a half feet) in length. It is affirmed, that this great stag of New California is one of the most beautiful animals of Spanish America. It probably differs from the *wewakish* of M. Hearne, or the *elk* of the United States, of which naturalists have very improperly made the two species of *cervus Canadensis* and *cervus Strongyloceros*. The horns of these stags are said to be nine feet long, and the animal, when running, throws up its head to rest them on its back."—*Thompson's Alcedo*.

The missions of New California, which had been founded up to 1803, were—

San Diego, a village founded in 1769, fifteen leagues distant from the most northern mission of Old California. Population in 1802, 1560.

San Luis el Rey de Francia, a village founded in 1798, 600.

San Juan Capistrano, a village founded in 1776, 1000.

San Gabriel, a village founded in 1771, 1050.

San Fernando, a village founded in 1797, 600.

San Buenaventura, a village founded in 1782, 950.

Santa Barbara, a village founded in 1786, 1100.

La Purissima Concepcion, a village founded in 1787, 1000.

San Luis Obispo, a village founded in 1772, 700.

San Miguel, a village founded in 1797, 600.

Soledad, a village founded in 1791, 570.

San Antonio de Padua, a village founded in 1771, 1050.

San Carlos de Monterey, capital of New California, founded in 1770.

San Juan Bautista, a village founded in 1797, 960.

Santa Cruz, a village founded in 1794, 440.

Santa Clara, a village founded in 1777, 1300.

San José, a village founded in 1797, 630.

San Francisco, a village founded in 1776, with a fine port. This port has been frequently confounded by geographers with the port further north under the

38° 10' of latitude, called the Puerto de Bodega. Population of San Francisco, 820.

The number of whites, *Mestizos* and Mulattoes, who live in New California, either in the *presidios*, or in the service of the monks of St. Francis, was at that time about 1300; for in the two years of 1801 and 1802, there were in the caste of whites and mixed blood 35 marriages, 182 baptisms, and 82 deaths. The population of the intendancy of New California was, in 1803, 15,600.

Such was the condition of California under the Spanish monarchy and church missions.

The only recent accounts of New California, upon which we can place any reliance, are those given by Captain Wilkes, commander of the exploring expedition of the United States by sea. He sent a party overland from Oregon, and he entered with his ships the Bay of St. Francisco from the Pacific, and proceeded up the country. An overland expedition from the United States to Oregon and California, of which a most interesting journal was kept by the commander, Captain Fremont, of the Topographical *Engineers*. From these two works we have extracted and condensed the following sketches of St. Francisco, and the interior of New California.

According to the account drawn up by Captain Wilkes:—

On approaching the coast in the neighbourhood of San Francisco, the country has by no means an inviting aspect. To the north it rises in a lofty range of mountains, whose highest summit is called Table Hill; an iron-bound coast extends from Puerto de los Reyes to the mouth of San Francisco.

To the south extends a sandy beach, behind which are the San Bruno sand-hills. There is no appearance of cultivation. The land to the north is abrupt and mountainous; to the south sandy and barren. The entrance to the bay is between bold and rocky shores, which confine the tide, and which flowing in, bore Captain Wilkes' ship onwards through a narrow passage into a large estuary, within which several islands and rocks are scattered. Some of the islands are covered with rich vegetation, others are barren, and covered with guano; immense flocks of sea-fowls are perpetually hovering over, around, and alighting upon them. The shores of the bay recede north and south far beyond the visible horizon; and there is comprehended within the magnificent view one of the most spacious and safest ports in the world.

YERBA BUENA is the usual but not the best anchorage. The town, as it is called, or rather the scattered buildings, consists of a large frame house, occupied by the agent of the Hudson Bay Company; a store, kept by an American; a billiard-room and bar; a poop-cabin of a ship, occupied as a dwelling by an Anglo-American captain; a blacksmith's shop, and some out-buildings. There is an old dilapidated *adobe*, conspicuous building, on the top of the hill overlooking the anchorage. Yerba Buena stands on a sterile soil, and in the

face of hills of bare rock. At low water an extensive mud-flat extends in front.

Captain Wilkes says, he found a total absence of all government in California, and even its forms and ceremonies thrown aside.

"After passing through the entrance of the bay," he observes, "we were scarcely able to distinguish the Presidio; and had it not been for its solitary flag-staff, we could not have ascertained its situation. From this staff no flag floated; the building was deserted, the walls had fallen to decay, the guns were dismounted, and every thing around it lay in quiet. We were not even saluted by the stentorian lungs of some soldier, so customary in Spanish places, even after all political power as well as military and civil rule has fled. I afterwards learned that the Presidio was still a garrison in name, and that it had not been wholly abandoned; but the remnant of the troops stationed there consisted of no more than an officer and one soldier. I was not able to learn the rank of the former, as he was absent, and appeared, at least among the foreigners, to be little known."

"At Yerba Buena there was a similar absence of all authority. The only officer was the alcalde, who dwells at the mission of Nostra Senora de los Dolores, some three miles off. He was full of self-importance, making up for what he wanted in the eyes of others, by a high estimate of his own dignity. I could find no one who could furnish me with his name, which must be my apology for not recording it in his place. Some excuse may be offered for his inattention to his duties, as I understood that he had just been united in wedlock to a lady of one of the distinguished families of the country; and after such an event in California, much gaiety and rejoicing usually follow, until the hilarity at times becomes so uproarious as to end in fighting and bloodshed."

Palermo mountain, called Table Hill by Captain Beechey, is about two thousand five hundred feet high, and wooded here and there with scraggy oaks. Between this mountain and the bay the hills recede, so as to form a sort of amphitheatre. This place was chosen for the observatory, and where the instruments had been set up under the direction of Lieutenant Carr. Captain Wilkes says—

"This place is well adapted for the resort of whalers. Here they may repair their boats, obtain water, and refit; and from their frequent resort to it, has obtained the name of Whalers' Harbour. The cove is a safe anchorage, being protected from the north-west and westerly winds, which prevail during the summer season, and often blow with great violence."

"At the time of our visit, the country altogether presented rather a singular appearance, owing, as I afterwards observed, to the withered vegetation and the ripened wild oats of the country. Instead of a lively green hue, it had generally a tint of a light straw-colour, showing an extreme want of moisture. The drought had continued for eleven months; the cattle were dying in the fields,

and the first view of California was not calculated to make a favourable impression either of its beauty or fertility."

The country, at the time of Captain Wilkes' visit, and for several years previous, had, he says, been in a state of revolution, and was involved in anarchy and confusion, without laws or security of person and property. "It is undergoing," he remarks, "such frequent changes, that it is difficult to understand or to describe them."

UPPER CALIFORNIA exhibits, inland, lofty ranges of mountains, narrow valleys, and extensive plains. A range of high land, from ten to twenty miles in breadth, extends along the Pacific from Cape Mendocino to latitude thirty-two degrees north.

The Valley of San Juan, of no great extent, is situated between these hills and the *Sierra*, a low range of mountains. East of the Sierra is the valley of the Sacramento, from which, to the south, extends the valley of Buena Ventura as far as Mount San Bernardino, about the thirty-fourth parallel of latitude. East of this valley is the Californian range of mountains, being a continuation of the cascade range of Oregon; the southern summits are covered with snow. This range decreases in height until it declines into hills of moderate elevation. To the east of the Californian mountains are vast sandy, sterile plains. On the sea-coast range of hills the lands generally are unfit for agriculture, except in some vales of small extent. These hills are, however, well adapted for pasturage. They are covered with short sweet grass and wild oats, upon which deer and elk feed. The Valley of the Sacramento and that of San Juan are considered the most fertile districts of California. The Valley of San Juan is the garden of the country, and capable of producing wheat, Indian corn, rye, oats, &c., with all the fruits of the temperate and many of the tropical climates. It affords also excellent pasturage. This valley comprises a level plain from fifteen to twenty miles in width, extending north and south from the bay and mission of San Francisco. Several small streams and lakes water it, but in dry seasons the crops and herbage suffer extremely from drought, and the cattle are then also deprived of good pasture.

The Sierra affords little soil for cultivation, being rugged, barren, or sandy. It is in places, wooded with cedar, pine, and oak. The great Valley of Buena Ventura, the chief resort of the Californian Indians, is, by all accounts, far inferior to that of San Juan. It lies nearly parallel to the latter, and is watered by the San Joachim river and its branches.

This river receives numerous streams flowing from the Californian mountains. These near their base are wooded with oaks, to which succeeds the red California cedar (*Schubertia Abertina*), and still higher pines grow up to the region of perpetual snow. On the eastern side of this range there is but little timber, and in consequence of the want of moisture, trees do not flourish west of their lower

slopes. The inland plain, constituting a large part of Upper California, is, according to all accounts, an arid waste; the few rivers that exist rise periodically, and soon disappear in the sands.

Of the latter portion of country, however, there is little known, and the accounts given of it are greatly at variance with each other. Of seven persons who traversed it at different times, one declared that the horses and men had not only a scanty supply of water, but were actually nearly famished for want of food; while others stated they found both grass and water plentiful. Captain Wilkes remarks,—“The only thing that can reconcile these contradictory statements is, that these different persons had visited the country at different seasons of the year. It seems not at all improbable that the first of these accounts should be the correct one, for we find great aridity throughout the rest of California and Oregon also. All agree that the middle and most extensive portion of this country is destitute of the requisites for supplying the wants of man.”

CLIMATE.—“With California,” says Captain Wilkes, “is associated the idea of a fine climate and a rich and productive soil. This, at least, was the idea with which I entered its far-famed port; but I soon found, from the reports of the officers, after the trial they had had of it during the months of August and September, that their experience altogether contradicted the received opinion upon the first-mentioned point. Many of them compared its climate to that of Orange Harbour, at Cape Horn, with all its cold blustering winds and cloudy skies. This kind of weather prevails during the greater part of the year, and the comparison is literally true in relation to one portion of California—the sea-coast.”

The climate varies as much, if not even more, than the natural features and soil of the country. On the coast it has as high a mean temperature in winter as in summer. The latter is the coldest part of the year, owing to the constant prevalence of the north-west winds, which blow with the regularity of a monsoon, and are exceedingly cold, damp, and uncomfortable, rendering fire often necessary for comfort in midsummer. “This is, however, but seldom resorted to, and many persons have informed him that they have suffered more from cold at Monterey than in places of a much higher latitude. The climate thirty miles from the coast undergoes a great change, and in no part of the world is there to be found a finer or more equable one than in the Valley of San Juan. It more resembles that of Andalusia in Spain, than any other, and none can be more salubrious. The cold winds of the coast have become warmed, and have lost their force and violence, though they retain their freshness and purity. This district of country, about twenty miles long by twelve broad, is that in which the missions have been chiefly established; and the accounts of these have led many to believe that the whole of Upper California is well adapted for agriculture. The sandy barren highlands which separate the valley of San Juan from that of Buena Ventura, are about

1500 feet high. Pines grow along and over these heights, and the climate is exceedingly dry, though refreshed by the wind that blows against and over them.² Beyond these highlands lies the central valley of Buena Ventura, which may be considered an extension of the Sacramento, and through which the river San Joachim flows. Being confined within mountains, summer heat is oppressive, the thermometer ranging, it is said, as high as within the torrid zone.

Although the Californian range is covered with snow, immediately above this valley it appears to have but little effect in modifying the temperature, which is represented as tropical throughout the year. This valley extends as far south as the San Bernardino Mountain. The residents in California say that they have never known the wind to blow from the north-east within thirty miles of the coast.

In ordinary seasons these valleys are well watered by the mountain streams; these are for some periods of the year mere brooks, while during the rainy season, from November to February, they often become impassable torrents. The Sacramento is the largest river in California. One of its branches, River Destruction, takes its rise near Mount Shaste, and was examined throughout the whole of its course by the party sent overland by Captain Wilkes, until it joined the Sacramento; the latter is thought by some to pass through the mountains and join Pitt's River. Pitt's River is said to take its rise to the north-east of the Shaste Mountain, and from the information that they received, extends as far as Pitt's Lake, under the forty-second parallel. Captain Wilkes doubts whether the length of its course is so great, and believes that the Sacramento has its source in the eastern spurs of the Shaste Mountain.

FEATHER RIVER is the principal stream between the American River and the source of the Sacramento. It flows into the latter below the Prairie Butés from the north-east. This branch takes its rise in the Californian Mountains, and has a course of about forty miles. The American River is a small branch that joins the Sacramento at New Helvetia. After receiving this stream, the Sacramento is joined by the San Joachim, which flows from the south, and below their confluence enters the Bay of San Pablo, through the Straits of Kaquines, and thence into the Bay of San Francisco.

The Sacramento is navigable for boats for about 150 miles, and for vessels as far as New Helvetia. The upper portion of it, near the Prairie Butés, overflows its banks, and often submerges the whole of the Sacramento Valley as far down as the San Joachim.

The San Joachim has its sources in the Californian range. The Teta Lake is called by the Indians Chintache Lake; it is for the most part separated from the channel of the river, but, when full, joins it.

There are many small streams that flow through the different valleys and afford partial opportunities for irrigating the land; but there are none of them navigable except the Sacramento.

BAY OF SAN FRANCISCO.—Upper California, according to Captain Wilkes has one of the finest, if not the very best harbour in the world, that of San Francisco. Few are more extensive or could be as readily defended, while the fleets of all the naval powers of Europe and America might moor in it. This, he admits, is, however, the only really good harbour which the country possesses, for the others so called may be frequented only during the fine season, being no more than roadsteads, affording scarcely any shelter, and but few supplies to shipping.

MONTEREY is the capital of Upper California : the roadsteads Santa Barbara and San Pedro, are partly protected from the swell of the Pacific Ocean, by the islands. They are, however, but seldom resorted to, there being comparatively little trade along all this coast. Hides and tallow, which formerly abounded and rendered the intercourse profitable are not now to be procured.

The bay of Monterey is formed by Point Ano Nueva on the north, and Point Pinos on the south ; it is twenty-four miles wide at its entrance, and six in length to the east ; the east shore is low and sandy, and the surf of the Pacific rolls over the beach with a tremendous noise.

The Spanish galleons at Monterey anchor in six fathoms water, at two cables length from the shore, and moored to the beach. Ships putting in keep the south shore aboard, and after doubling the south point (Point Pinos), which stretches to the north, until they see the fort, and drop anchor in ten fathoms behind the point, where they are sheltered from the west winds—the south winds blow strongly off the shore. At full and change of the moon, it is high water here at half-past one ; the tide rises seven feet.

Whales, a species of finner, have frequented the bay, and La Perouse says, that they came within half pistol-shot of the ship, and occasioned a disagreeable smell. The coasts of this bay are often covered with fogs, which render it dangerous to approach. Pelicans are said to frequent the sea at a short distance from land, and are a good sign for seamen, as they never go more than six leagues from shore. The Manilla galleons bore away for this place as a good harbour to recruit in, when driven to the north by contrary wind.

TRADE OF SAN FRANCISCO.—The breaking up of the missions, and the duties and prohibitions, have nearly destroyed the little trade that once existed. In this port a few hulks may be seen lying, furnished with every needful article : these keep up an illicit intercourse by the connivance of the officers of the government.

The principal articles imported are cotton, cloths, velvets, silks, brandies, wines, teas, &c., in return for which they receive hides and tallow, skins, wheat, and salmon. The attention of the inhabitants has been chiefly directed to the rearing of cattle, and the greater part of the wealth of California may be considered as consisting of live stock. The value of exports on the average of years is stated to be about 150,000 hides, and 200,000 arrobas of tallow. The price for the former has been about two dollars, while the latter was worth one dollar and fifty cents the

arroba. About two thousand beaver skins, valued at two dollars each, are brought to this market by the trappers, and from four to five hundred sea-otter skins are brought in by the American hunters, which are valued at thirty dollars each. *Wheat has been exported to the Russian posts* to the amount of 12,000 bushels, of which the average price has been about fifty cents a bushel. It has been as high, in 1841, as two dollars and fifty cents, in consequence of the great drought that prevailed. Among the animal exports may be enumerated about 3000 elk and deer skins, which are valued at from fifty cents to a dollar each. The whole exportable products of the country may be estimated at less than a million of dollars.

AGRICULTURE WITHIN THE CALIFORNIAN VALLEYS.—The wheat crops yield large returns. Capt. Wilkes was informed by Mr. Spears, of Yerba Buena, that he had delivered to an active American farmer thirty bushels of wheat for seed, at a time when it was difficult to procure it, under an agreement that he should have the refusal of the crop at the market-price. In July following, he delivered him 3000 bushels; and on its delivery he found that the farmer had reserved 600 bushels for himself, and this without estimating the loss from bad reaping and treading out with horses, would give 120 for one. This is not considered a fair criterion or average, as the land was remarkable for its richness, and was well attended to; but Mr. Spears, and several others, assured him, that the average would be as high as eighty bushels yielded for one planted.

Indian corn yields well, as also potatoes, beans, and peas. The cultivation of vegetables is increasing rapidly, and supplies in these latter articles may be had in abundance, and of the finest quality.

The country appears to be well adapted for grapes. Those that have been tried at the missions yield most abundantly, and about 200 casks, each of eighteen gallons, of brandy, and the same quantity of wine are made. The cultivation of the grape increases yearly, but is not sufficient for the supply of the country, as large quantities of foreign wines and liquors are imported, which pay an enormous duty. Captain Wilkes was informed by every intelligent person he met with, that the inhabitants of California consumed more spirits, in proportion to their number, than any other part of the world. Brandy sold for sixty to seventy dollars the cask, or four dollars a gallon, while the price of wine was only eighteen dollars. The wine of the country which he tasted was miserable stuff, and would scarcely be taken for the juice of the grape.

THE SALMON FISHERY is but little attended to. Captain Wilkes says the Californians never seem to attempt to catch salmon. The general opinion is, that they are too indolent to bestir themselves, and they naturally choose the employment which gives them the least trouble. Above every thing, the rearing of cattle requires the least labour in this country, for it is only necessary to provide keepers and have their cattle marked. This done, they can support themselves by the increase of the stock.

MANUFACTURES.—At the missions, the manufacture of various coarse articles had been undertaken by the missionaries as a step in the education of the Neophytes. Among these were blankets and wearing apparel, sufficient to supply all the Indians; but with the decline of these establishments the manufactures have in great part been discontinued. Soap of good quality is manufactured in considerable quantities, and it is thought that it might be exported at a profit, if the proper arrangements were made to use the grease which is now thrown away. The necessary alkali is very abundant. Leather of excellent quality is also made and well tanned, but in such small quantities as to be hardly sufficient to supply the wants of the country.

MILLS.—There are in California only two or three water-mills for grinding flour, and these are owned by foreigners. The mills in general use in the country are composed of no more than two burr-stones. To the upper stone a cross-beam is secured, to which mule-power is applied. In most of the *estancias* there is to be found a mill in an apartment adjoining the kitchen, if not in it. The whole is as primitive as well can be, although it is made to answer all the wants of an independent people.

LIVE STOCK.—From all accounts, besides cattle, the country is adapted for the raising of sheep, which simply require watching, as they can find plenty of nutritious food the whole year round; but there has been no attention paid to this sort of stock, and the wool is of very ordinary quality. The mutton is said to be of very fine flavour. The usual price for a sheep is from one dollar and fifty cents to two dollars, when a choice is made for killing.

Hogs are raised in some parts, and might be fed to great advantage on the acorns which are abundant on the hills, where the land is not susceptible of cultivation. Pork may be salted and packed for three dollars the hundred weight. What adds to the facility of curing is the large quantities of salt which crystallise in the ponds in the dry season, and which may be obtained for the expense of carriage.

GENERAL TRADE OF CALIFORNIA.—Trade is so much interrupted, and so much under the influence of the governor and the officers of the customs, that those attempting to carry it on, under the forms usual elsewhere, would find it a tedious pursuit. Foreign adventurers, however, contrive to evade customslaws, by keeping their vessels at anchor, and selling a large portion of their cargoes from on board. "Great partiality," according to Captain Wilkes, "is shown to those of them who have a full understanding with his excellency the governor; and from what he was given to understand, if this be not secured, the traders are liable to exactions and vexations without number. The enormous duties, often amounting to eighty per cent *ad valorem*, cause much dissatisfaction on the part of the consumers; the whole amount raised is about 200,000 dollars per annum, which is found barely sufficient to pay the

salaries of the officers and defray the costs of the government feasts, which are frequent, and usually cost a 1000 dollars each. These emoluments are shared among the heads of departments at Monterey, whilst the soldiers are often for months without their pay, and are made to take it in whatever currency it may suit the government to give. Besides the above duties there is a municipal tax on many things; thus, a dollar is demanded on every gallon of spirits imported; fifty cents on each beaver or otter skin, and on other articles in the same ratio. Next come the church tithes, which are enormous. I heard of a farmer who was made to pay 190 dollars as the tithe on his produce, although he lives far removed from either church or priest. All these things are bringing the government into great disrepute, and the governor is every day becoming more and more unpopular; so much so, that his orders have not been complied with, and have been treated with contempt, particularly when he desires to recruit his forces. A short time before our arrival he sent a list to a pueblo of the young men to be drafted as soldiers; when it was received they in a body refused to go, and sent back the disrespectful and defying message, that he might come and take them. Nothing can be more degraded than the lower functionaries, such as the alcaldes and their underlings. They are ignorant men, who have no ideas of justice, which is generally administered according to the alcalde's individual ideas or partiality. To recover a debt by legal means is considered beyond a possibility, and creditors have to wait until the debtor is disposed to pay." Captain Wilkes, however, qualifies this degraded administration, and observes: "Fortunately, and to the honour of the country, a just claim is rarely or never denied; and, until lately, the word of a Californian was sufficient to insure the payment of claims on him; but such has been the moral degradation to which the people have fallen since the missions have been robbed by the authorities, and the old priests driven out, that no reliance can be placed now upon their promises, and all those who have of late trusted them complain that engagements are not regarded, and that it is next to impossible to obtain any returns for goods that have been delivered. The state of the country is, however, some excuse, as it has been impossible for any one to make calculations under the existing anarchy and confusion."

"It was at first believed that the revolution which took place in November, 1836, would result in much immediate good to those who effected it, but such has not been the case. Foreigners unquestionably performed a large part in planning and carrying the change out; yet none have suffered so much by it as they have."

On the future prospects of California he remarks,—"The situation of Upper California will cause its separation from Mexico before many years. The country between it and Mexico can never be any thing but a barren waste, which precludes all intercourse except that by sea, always more or less interrupted by the course of the winds and the unhealthfulness of the lower or sea-port towns of

Mexico. *It is very probable that this country will become united with Oregon, with which it will, perhaps, form a state that is destined to control the destinies of the Pacific.* This *future state* is admirably situated to become a powerful maritime nation, with two of the finest ports in the world, that within the straits of Juan de Fuca, and San Francisco. These two regions have, in fact, within themselves, every thing to make them increase, and keep up an intercourse with the whole of Polynesia, as well as the countries of South America on the one side, and China, the Philippines, New Holland, and New Zealand, on the other. Among the latter, before many years, may be included Japan. Such various climates will furnish the materials for a beneficial interchange of products, and an intercourse that must, in time, become immense; while this western coast, enjoying a climate in many respects superior to any other in the Pacific, possessed, as it must be, by the Anglo-Norman race, and having none to enter into rivalry with it but the indolent inhabitants of warm climates, is evidently destined to fill a large space in the world's future history."

ABORIGINES OF CALIFORNIA AND THE MISSIONS.—The aborigines were first induced to adopt a change of religion either by the persuasion of the missionaries or by presents. Force was also resorted to as a last effort to bring them within the mission. The practice at that time was, that on being converted to Christianity, they were enforced to give ten years faithful service, after which period they were to be at liberty, and to have allotted to them a small piece of land for cultivation, and a few cattle, provided they could advance security for good behaviour. This was seldom realised; but their treatment was much more kind after the expiration of their term of service, and they usually remained in the employ of the missions, having become attached to their masters and to their occupations. They were, no doubt, kindly treated by the ecclesiastics, and their labour or duties consisted chiefly in taking care of cattle, labouring on the mission-farm, gardening, and household work. Some were taught to become carpenters and blacksmiths, others weavers, shoemakers, and manufacturers of leather; and some were let out to private service to "*gente de razon*," or the *people of reason*, as the whites are still termed in California. The police of the missions was strict, and punishment was administered when required. Rewards for good behaviour were also given, as well as for bringing in *Neophytes*.

During the revolts in 1836, the Indians of many of the missions were cast off, neglected, and deprived of the fruits of their labour. It was always impressed upon them by the *Spanish Padres* that they were interested in the property which had been accumulated by their labour, and this belief had naturally tended to attach them to the soil.

The ravages of the small-pox, two years prior to Captain Wilkes's visit, completed the destruction of these establishments, for it swept off one-half of the

aborigines and dispirited the rest, many of whom joined the wild tribes. He remarks, in 1841, they "are now committing acts of violence on the whites; they are becoming daily more daring, and have rendered a residence in single farm-houses, or *estancias*, not without danger. In looking at the state in which these poor Indians have been left, it cannot be denied but that they have cause to be dissatisfied with the treatment they have received."

Formerly each mission was considered as representing within its fold a distinct family of Indians, and consisting, in some missions, of about twelve hundred souls. During the authority of the Spanish priests, the administration of the missions was judiciously conducted: the aborigines were well clad, well fed, and lodged.

The *padres* purchased, in exchange for the products of Indian labour, annually ten thousand dollars' worth of articles from the vessels trading upon the coast. Each mission formed a kind of municipality of itself, having its *alcalde* and inferior officers. The Indians, who were at first disinclined to labour, became gradually industrious, as they enjoyed equitable advantages from the fruits of their own better-directed labour, on becoming converts to Christianity: at least so far as to observe and perform the ceremonial of the church. The forms and ceremonials of the church also allured the aborigines, and attached them to the missions, which increased in wealth by the industry of the greatly increased number of labourers, cultivating a rich soil in a genial climate.

In 1835 this happy state of the mission was revolutionised by one of the nominally republican, but in reality, military and despotic misgovernments which have afflicted the Mexican territories. *Administradores* were appointed to each mission, the priests were deprived of their municipal administration, and their duties limited to their clerical functions, with an allowance of a small stipend.

It is not contended that the private lives of the padres were generally either virtuous or free from profligacy; but with respect to the aborigines and the pecuniary prosperity of the missions, the latter have been plundered by the *administradores*, and the former have been, in many instances, dispersed, while the padres have not been able to bring in fresh *Neophytes*. During the visit of Captain Wilkes the padres of the mission of San José were, from want of substance, compelled to disperse five hundred of their proselytes to procure their subsistence. The *administradores* despoiled the missions as property acquired, only to be *re-invested* in the state; that is, in its rapacious officers for the time being. The rights of the poor aborigines were entirely overlooked; and when the latter brought away the cattle which justly belonged to them, they were severely punished. The injustice of being robbed of the fruits of their labour, and of witnessing others living upon the common stock of the missions, while the Indians were driven off to seek a precarious subsistence in the forests, naturally exasperated those who were brought up under these missions.

The consequence of such injustice was depredations committed by those Indians often with great success. Captain Wilkes observes, that "a month previous to the arrival of the squadron, they had driven off 300 horses. Retaliatory measures on the part of the Californians were adopted; a party was collected and despatched to punish them, which proceeded towards the interior, came to a village, and, without any inquiry whether its dwellers had been the aggressors, it was set on fire and reduced to ashes; some of the defenceless old men, who, from their infirmities, could not escape, were put to death, and forty or fifty women and children carried off as prisoners. This was not all: these prisoners were apportioned as slaves to various families, with whom they still remain in servitude, and receive very harsh treatment. Smarting under such wrongs, it is not surprising that the Indians should retaliate. They openly assert, that after taking all the horses, they will commence with families; and many of those which are situated on the frontiers experience much alarm. In June, 1841, an Englishman was shot by an arrow at the door of his house, early in the evening. The Indians enticed him out by making a noise near by, and the moment he opened the door, with a candle in his hand, an arrow was sent through his heart."

The Indians at present rarely steal any property but horses; but so daring are they, that they not unfrequently take them out of the enclosures near the *pueblos*. Their reason for confining themselves to this description of property is, that with them they are able to avoid pursuit, which would not be the case if they stole cattle. The Californians, on detecting and apprehending the aggressors, show them no mercy, and their lives are made the forfeit. This constant foray on one side or the other, maintains an unceasing animosity; and as long as the present imbecile government lasts, there is not the least prospect of security or improvement.

To all strangers but those of the Spanish race, the Indians seem in general well disposed, as they have usually received from the former considerate and kind treatment. The character of these Indians is not represented as savage, and they were little disposed to harass the whites until they had been themselves ejected from the missions and forced to consort with those who are yet in a wild state. The knowledge they have of the Californians, of the missionary establishments, and the manner of conducting them, enables them to act effectively; and if it were not for the presence of the English and Americans, they would either drive the Spanish race out of the country, or confine them to the limits of their villages.

INDIAN POPULATION OF CALIFORNIA.—The number of Indians is variously stated at from 12,000 to 15,000; but it is believed by some of the best informed, that their number, since the small-pox made its ravages among them, is not much more than 8000 or 9000. The principal part of which consists of the tribes on the Sacramento.

POPULATION OF THE EUROPEAN RACE.—It is said that there has been an exaggeration in computing the number of the whites or “gente de razon.” These have been usually estimated at 5000; but, from the best information obtained by Captain Wilkes, he could not satisfy himself that they number more than 3000 souls. In this estimate is not included those of mixed blood, who may amount to 2000 more; so that the whole of Upper California at the date of his visit in 1841, the entire population was about 15,000 souls; which estimate he considered about correct.

The remarkably good health and robustness of the white inhabitants, he attributed to the “fine climate, as well as to their simple diet.” This consists of beef roasted upon wood coals, a few vegetables, and the tortilla. Throughout the country, both with the rich and poor, this is the general fare; but some few luxuries have been lately introduced, among which are rice and tea. The latter is used so sparingly, that the discolouration of the water is scarcely perceptible. At the missions, they live more after the Spanish fashion. The children are, for the most part, left to take care of themselves, and run about naked and dirty. They are generally robust, and their relative number seems to be very great; thus, it is by no means uncommon to see families of fourteen or fifteen children; and an instance was mentioned, of a woman near Yerba Buena, who had had twenty-six.

A large number die from accidental falls from horses, which, from almost their childhood, they are accustomed to ride. They soon become expert and fearless riders, and this acquirement is not confined to the male sex; the women are almost equally expert.

Although the Californians are comparatively few in number, they retain a distinctive character. Descended from the old Spaniards, they inherit all their vices, with a few of their virtues. Both sexes are addicted to gambling with cards, dice, &c.

Among their other amusements are cock-fighting, bull and bear-baiting, and dancing, accompanied with excessive drinking. Parties of amusement, to which the surrounding population is invited, are frequent; these generally last for three days, and rarely break up without some quarrel. Weddings are particularly liable to these disorders, and at each of the three last that took place at and in the vicinity of Yerba Buena, previous to Captain Wilkes’s visit there, a life was lost by the cuchillo. This weapon, which is always worn, is promptly resorted to in all their quarrels.

The female portion of the community are described by the same authority as “ignorant, degraded, and the slaves of their husbands. They are very fond of dress, and will make any sacrifice, even their own honour, to gratify it. The men have no trades, and depend for every thing upon the Indians at the missions, some of whom are ingenious, both as carpenters and blacksmiths. The whites are so indolent, and so proud, as to make them look upon all manual labour as

degrading ; regarding all those who work as beneath them ; they, in consequence, can never be induced to labour."

The state of morals he describes as very low, and every day as becoming worse. During the residence of the old Spanish priests, the people were kept under some control ; but, since the change, priests and laymen are alike given up to idleness and debauchery. They are, however, remarkable for their hospitality. It is alleged that they will give up all business to entertain a guest. They put no value whatever upon time, and on entering into contracts they have no regard to punctuality, frequently allowing two, three, and four years to pass by before payment. This does not proceed from dishonesty, or any intention to evade their debts, for eventually they pay, if they can, and do not object to the amount of interest. They, in fact, regard the inconvenience to which they may have put their creditors as of no sort of consequence.

Captain Wilkes was informed, that to offer money for entertainment was considered as an insult. He did so, and it was refused ; yet when he offered it through his servant, it was readily accepted. He says further, " While one is entertained by them, if he should want to hire or purchase any thing, the landlord will league with those about him in schemes of extortion to be practised upon the stranger, and appear vexed with those who are the prominent extortioners."

The Californians, as a people, he says, must be termed cruel in their treatment to their wives, as well as to the Indians ; and in a still greater degree, of course, to their slaves and cattle. They are exceedingly ignorant of every thing but extortion, riding horses, and catching bullocks.

EXPEDITION TO EXPLORE THE BAY OF SAN-FRANCISCO, AND UPPER COUNTRY.

ON the 20th of August, Lieutenant-Commandant Ringgold left the United States' ship of war, Vincennes, Captain Wilkes (lying in the bay of San Francisco), with six boats, accompanied by Dr. Pickering, Lieutenants Alden and Budd Passed-Midshipman Sandford, Midshipmen Hammersley and Elliott, and Gunner Williamson, with provision for thirty days, accompanied by an Indian pilot. They first passed the islands of *Angelos* and *Molute*, next the points of San Pedro and San Pablo, and then entered the bay of San Pablo.

This bay is of a form nearly circular, and ten miles in diameter ; many small streams flowed into it, fresh from the neighbouring hills. On the east side of this bay, the river Sacramento empties into it through the Straits of Kaquines. The land is high, and the sandstone rock on each side of the straits resembles that observed about the Straits of De Fuca. The hills are described as " thickly covered with wild oats, which were ripe, and the landscape had a peculiar golden hue. The contrast of this with the dark green foliage of the scattered oaks,

heightened the effect, which, although peculiar, is not unpleasing to the sight. The trees all have an inclination towards the south-east, showing the prevalence and the violence of the bleak north-west winds, producing on them a gnarled and mountain character. This feature is general throughout the coast of California, and gives the trees a singular appearance, the flat tops having the air of being cut or trimmed after the manner of box-trees. The tops are bent to one side, and the larger branches hidden by the numerous twigs which compose the mass. The only place where a similar character was observed by us impressed upon the foliage, was at Terra del Fuego."

After passing the straits, the delta of the Sacramento opened to view. The Tula marshes, which are overflowed by the river above, are very extensive, and are said to be the resort of a vast number of beavers, which, in consequence of the nature of the ground, are difficult to catch, many more traps being necessary than in other localities. They then proceeded up the Sacramento to the American river falling into it, where a native of Switzerland has formed an establishment.

NEW HELVETIA.—Captain Suter, the founder, is a Swiss by birth, and informed Commandant Ringgold that he had been a lieutenant in the Swiss guards during the time of Charles X. Soon after the revolution of July, he came to the United States, and passed several years in the state of Missouri. He has but recently removed to California, where he has obtained from the government a conditional grant of thirty leagues square, bounded by the Sacramento on the west, and extending as far up the river as the Prairie Butes. The spot he has chosen for the erection of his dwelling and fortification, he has called New Helvetia; it is situated on the summit of a small knoll rising from the level prairie, two miles from the east bank of the Sacramento, and fifty miles from its mouth. New Helvetia is bounded on the north by the American Fork, a small serpentine stream, which has a course of but a few miles. This river, having a bar near its mouth, no vessels larger than boats can enter it. At this place the Sacramento is 800 feet wide, and this may be termed the head of its navigation during the dry season, or the stage of low water.

Mr. Geiger, a young American from Newport, was attached to Captain Suter's establishment; but he informed Captain Wilkes that he intended to settle higher up the Sacramento, on the banks of the Feather River. When Captain Suter first settled here in 1839, he was surrounded by some of the most hostile tribes of Indians on the river; but, by his energy and management, with the aid of a small party of trappers, has prevented opposition to his plans.

Although Captain Suter is, in general, in the habit of treating the Indians with kindness, yet he related to Lieutenant Ringgold and his party instances in which he had been obliged to *fusilade* nine of them; indeed, he did not seem to stand upon much ceremony with those who opposed him in any way. His buildings consist of extensive *currals* and dwelling-houses for himself and people, all built

of *adobes* (unburnt bricks). Labour is paid for in goods. His stock then amounted to about 1000 horses, 2500 cattle, and about 1000 sheep, many of which were seen in flocks around his premises, giving the place an appearance of peaceful civilisation.

Captain Fremont, who proceeded as far as New Helvetia three years after Captain Wilkes's visit, observes :—

" Captain Suter who, in 1838-9, formed the first settlement in the valley, on a large grant of land which he obtained from the Mexican government, had at first some trouble with the Indians, but by the occasional exercise of well-timed authority, he has succeeded in converting them into a peaceable and industrious people. The ditches around his extensive wheat-field—the making of the sun-dried bricks, of which his fort is constructed—the ploughing, harrowing, and other agricultural operations, are entirely the work of these Indians, for which they receive a very moderate compensation, principally in shirts, blankets, and other articles of clothing. In the same manner, on application to the chief of a village, he readily obtains as many boys and girls as he has any use for: there were at this time a number of girls at the fort in training for a future woollen factory, but they were now all busily engaged in constantly watering the gardens, which the unsavourable dryness of the season rendered necessary. The occasional dryness of some seasons, I understood, to be the only complaint of the settlers in this fertile valley, as it sometimes renders the crops uncertain. Mr. Suter was about making arrangements to irrigate his lands by means of the Rio de los Americanos. He had this year sown, and altogether by Indian labour, 300 fanegas of wheat.

" A few years since, the neighbouring Russian establishment of Ross being about to withdraw from the country, sold to him a large number of stock, with agricultural and other stores, with a number of pieces of artillery and other munitions of war; for these a regular yearly payment is made in grain.

" The fort is a quadrangular *adobe* structure, mounting twelve pieces of artillery (two of them brass), and capable of admitting a garrison of a thousand men; this at present consists of forty Indians, in uniform, one of whom was always found on duty at the gate. As might naturally be expected, the pieces are not in very good order. The whites in the employment of Captain Suter—American, French, and German—amount, perhaps, to thirty men. The inner wall is formed into buildings, comprising the common quarters, with blacksmith's and other workshops; the dwelling-house, with a large distillery-house and other buildings, occupying more the centre of the area.

" It is built upon a pond-like stream, at times a running creek, communicating with the Rio de los Americanos, which enters the Sacramento about two miles below; the latter is here a noble river, about 300 yards broad, deep and tranquil, with several fathoms of water in the channel, and its banks continuously timbered.

There were two vessels belonging to Captain Suter at anchor near the landing—one a large two-masted lighter, and the other a schooner, which was shortly to proceed on a voyage to Fort Vancouver for a cargo of goods.

"Since his arrival, several other persons, principally Americans, have established themselves in the valley. Mr. Sinclair, from whom I experienced much kindness during my stay, is settled a few miles distant, on the Rio de los Americanos. Mr. Coadrois, a gentleman from Germany, has established himself on Feather River, and is associated with Captain Suter in agricultural pursuits. Some settlers also from the Columbia River had arrived. Among other improvements, they are about to introduce the cultivation of rape-seed (*brassica rapus*), which there is every reason to believe is admirably adapted to the climate and soil. The lowest average produce of wheat, as far as we can at present know, is thirty-five fanegas for one sown; but as an instance of its fertility, it may be mentioned that Senor Valejo obtained, on a piece of ground where sheep had been pastured, 800 fanegas for eight sown. The produce being different in various places, a very correct idea cannot be formed."

Captain Suter, who had engaged in extensive agricultural operations, had, in the year of Captain Wilkes's visit, all his crops ruined by the drought. He had taught the Indians to make *adobes*. The agreement for their services were usually made with their chiefs, and in this way as many as he wanted were readily obtained. The chiefs had far more authority over their tribes than those which Captain Wilkes had seen to the north, and appeared to have more authority over, and were more respected by their tribes, than those of any other of the North American Indians. Connected with his establishment, Captain Suter had erected a distillery, in which he made a kind of spirit from the wild grape of the country.

To all the foregoing enterprises, Captain Wilkes says:—

"That Suter added the direction of a large party of trappers and hunters, mostly Americans, who enter here into competition with those of the Hudson Bay Company; and attended also the Russian establishment at Ross and Bodega, which had just been transferred to him for the consideration of 30,000 dollars. In the purchase were included all the stock, houses, arms, utensils, and cattle, belonging to the establishment. It was understood that this post was abandoned by orders of the Russian government, the Russian company no longer having any necessity to hold it to procure supplies, as they are now to be furnished under a contract with the Hudson Bay Company; and, by giving it up, they avoid many heavy expenses."

BODEGA.—The trading post at this place was first established by the Russians in 1812, under a permission from the then governor of Monterey, to erect a few small huts for salting their beef. A small number of men were left to superintend this business, which in a few years increased, until the place became of

such importance in the eyes of the Spanish authorities, that on the Russians attempting to establish themselves at San Francisco, on the island of Yerba Buena, and to employ their men in trapping during the season, they were ordered to leave the country. This they refused to do, and having become too strong to be removed by the Spanish force, the post had been suffered to remain undisturbed until the time of Captain Wilkes's visit.

The PORT OF BODEGA is situated about ninety miles to the north of that of San Francisco, and being both inconvenient and small, cannot be entered except by vessels of a small draft of water. Captain Wilkes says, "From what I understood from the officers who had been in charge of it, it had been a very considerable expense to the Russian American Company to fortify it, and the disposal of the whole, on almost any terms must have been advantageous. Captain Suter had commenced removing the stock and transporting the guns, &c., to his establishment."

The building at the two posts numbered from fifty to sixty, and they frequently contained a population of 400 or 500 souls. Since the breaking up of the establishment, the majority of the Russians returned to Sitka; the rest have remained in the employ of the present owner.

Although the country around New Helvetia was parched up with the severe drought that had prevailed before the arrival of Captain Wilkes, yet the short grasses were abundant, and it was more completely covered with vegetation than that below. Scattered oaks grew in all directions, some of which were of large dimensions—five or six feet in diameter, and sixty or seventy feet high.

The scenery was very much admired, and Mount Diavolo, near the mouth of the San Joachim, adds to its beauty. The mountains to the east are visible from Captain Suter's settlement, and it is said that during some portions of the year they are covered with snow. A route across them was followed, directly east of this place, by a party, but they were twenty days in getting over, and found the country so thickly wooded that they were obliged to cut their way. The pass which is recommended as the best, is 200 miles to the north of this place, through the gap made by the head waters of the Sacramento. This has lead to the belief that Pitt's River extends in this direction through and beyond them.

ROUTE FROM SAN FRANCISCO TO THE UNITED STATES.

The best route from San Francisco to the United States, as laid down by Captain Wilkes, is to follow the San Joachim for sixty miles, thence easterly, through a gap in the snowy mountains by a good beaten road; thence the course is north-easterly to *Mary's River*, which flows south-east, and has no outlet, but loses itself in a lake; thence continuing in the same direction, the Portneuf River in the Upper *Shoshone*

is reached; and thence to *Fort Hall*, according to Dr. Marsh (an American of much intelligence, resident at the mouth of the San Joachim, to whom Captain Wilkes says, "we are indebted for much information of the country"), there is plenty of fresh water and pasture all the way, and no proper desert between the Californian range and the Colorado. See hereafter "Captain Fremont's Journey from Fort Hall to the Columbia."

Dr. Marsh crossed nothing like a range of mountains in the whole route from the United States. Hills and mountains were often seen on what he calls the table land of New Mexico. The most common plant met with was an acacia, a small shrub which is also to be found in the southern parts of New Mexico, where the climate is likewise very arid. In one district where it occurs, it is found necessary to protect both horse and rider with a sort of armour against this rigid and thorny vegetation, between latitude 37 deg. and 38 deg. north. He also reports that there are other streams to the east of the mountains without outlets, and which do not reach the Colorado, although running in that direction. He identifies the *Youta*, or Great Salt Lake, with the *Lake Temponogos* of the early Spanish fathers who visited it, and agrees with others in placing the north end of it nearly in the parallel of 42 deg. north. See also "Captain Fremont's Journey."

The COLORADO OF THE WEST he reports to be impracticable for boats to descend from the head waters to its mouth, on account of its rapidity. There is one place in it that is described as similar to the *Dalles* of the Columbia, which is supposed to be where it passes through the range of mountains.

EXPEDITION UP THE SACRAMENTO.—Captain Wilkes sent a boat, with an officer on board to explore the Sacramento upwards. They found the banks of the river bordered with marshes which extend for miles back. This kind of country continues up both the Sacramento and San Joachim, and is the proper *Tula* district, of which so much has been said and so many errors propagated. Here the *Tula* (*scirpus lacustris*) grows in great luxuriance.

On the 26th, they reached the mouth of Feather River, which is fifteen miles above New Helvetia. It appeared nearly as broad as the main stream, but there is a bar extending the whole distance across it, on which the boats grounded. On the point of the fort, the ground was strewed with the skulls and bones of an Indian tribe, all of whom are said to have died within a few years of the tertian fever, and to have nearly become extinct in consequence. Near this had been an Indian village, which was destroyed by Captain Suter and his trappers, because its inhabitants had stolen cattle, &c. The affair resulted in one of the Indians being killed, twenty-seven made captive, and the removal of the remainder beyond the limits of his territory. The battle-ground was pointed out, at a bend of the river, which is only one-third of a mile across, though three around.

Game is represented to have decreased in this vicinity, from the numbers destroyed by the parties of the Hudson Bay Company who annually frequent these grounds. (See account by Captain Fremont, of "The Destruction of Buffalo," &c.) Large flocks of curlew were seen, and the California quail, which disappeared since leaving the coast, was again observed. The trees that line the banks consist of the cotton-wood, &c. Single oaks, with short grass beneath them, are scattered over the plain.

The next day, as they advanced, game became more plentiful, and elk were found to be most so. Some of them were of large size, and at that season of the year, the rutting, they are seen generally in pairs, but at other times the females appear in large distinct herds. They were fine-looking animals, with very large antlers, and in the first instance, devoid of fear. The herds were usually thirty or forty in number, and chiefly composed of females and their young. The father of the flock is always conspicuous, and with his horns seemed to overshadow and protect the family.

The tula, or bulrush, was found in great quantities, growing on the banks. The Indians use its roots as food, either raw or mixed with the grass seed, which forms the principal article of their food. This root is likewise eaten by the grizzly bear.

The party encamped in the ruins near a grove of poplars of large size, some of which were seventy feet high, and two and a half feet in diameter. The leaf resembled that of the American aspen. At night they had a slight thunder shower. The wolves and bears had entered the camp during the night, although there was a watch kept at each end of it. The howling of the wolves was almost constant.

On the 27th, the current of the Sacramento had become much more rapid, and the snags more frequent. The banks were on an average about twenty feet above the water, though there was every appearance of their having been overflowed. The prairies were perfectly level, and everywhere overspread with the shells of the Planorbis. In some places these shells appeared as though they had been collected in heaps. From the top of these banks the Prairie Butes were in sight to the northward and westward.

As they proceeded up the river, the country continued of the same character, the level being only interrupted by trees that bordered the river. These consisted of oaks and sycamores.

Game and fur bearing animals had become more numerous, and among them were the lynx and fox. The latter is the species whose fur brings a high price in China, where, as much as twenty dollars is paid for a skin. This fox is said to have one peculiarity, namely, that when chased it will ascend trees. Bears were also seen in great numbers.

Dr. Marsh thinks there is but one species, the grizzly bear; but the black bear

of the United States is found in New Mexico, and highly prized for its skin: though Dr. Pickering thinks he saw another species, whose summer coat approaches the yellow bear of Oregon. The skin of the young is here sometimes made into quivers, and they are destitute of the horny claws of the grizzly bear. The skin of the later animal is said sometimes to be as large as that of an ox; its food is the same as that of the Indians, and varies with the seasons. Its strength is said to be prodigiously great, and it has been known, when lassoed, to drag three horses; and, when baited in the bull and bear-fights, practised in California, will check the charge of a bull by stretching out one of its paws. They will also ascend the oaks for the acorns, and break off branches so large as almost to ruin the tree. It does not, at all times, kill its enemies when it has them in its power; rarely attacks a man unless he comes upon him by surprise, and is not considered a dangerous animal.

The vegetation throughout the whole course of the Sacramento showed evident traces of salt, and in some places the prairies seemed to be incrusted with it.

On the 4th, the expedition returned to New Helvetia, where they found that a small Russian schooner had arrived from Bodega, bringing the governor of that establishment, who was about delivering it up to Captain Suter. The vessel was understood to have been built at Sitka, and was of only thirty tons' burden, very much resembling an English vessel of the same class.

For a boat they use a skin "Badaka," that is admirably adapted for the seas and weather they have to contend with. When the persons are seated, and the opening closed, with a skin dress they more resemble an aquatic animal than any thing else.

The morning after their arrival, Captain Suter paid his men their weekly wages, in cloths, calicoes, vests, shirts, and pantaloons. The whole was arranged through their chief, who spoke a little Spanish. The labourers are obtained from the different *rancherias*, and some from the vicinity of the mountains. It was observed that the larger portion of the labourers were young men and boys; no women were employed, and as yet their services are not needed; but it is the captain's intention, as he informed our gentlemen, to have employment for them in a year or two.

Captain Wilkes says, "Several Americans from the United States were then (1841,) beginning to settle in this part of the country, and it will not be long before it becomes, in some respects, an American colony. Although it was late in the season, a few salmon were caught at the fishery; they were not to be distinguished from the Columbia species of the first run."

"The Indians have several *rancherias* around New Helvetia. Their lodges are all somewhat like low haystacks, being composed of a framework of sticks thatched with the bulrush.

"In the preparation of the acorn bread all assist. The acorns are gathered in

very large quantities, piled in heaps, and spread in the sun to dry. Both men and women are to be seen employed shelling, pounding, and baking them into bread: the pounding is performed upon a plank that has been hollowed out with a stone pestle; to reduce the large quantity to a fine powder, requires great labour."

Captain Wilkes continues to observe, " Around New Helvetia, although but a few days had elapsed since their former visit, the country, if possible, appeared more arid; it by no means justified the high encomiums that we had heard bestowed upon this far-famed valley. Our expectations, probably, had been so much raised as scarcely to allow us to give it that credit it really deserves.

" The valley of the Sacramento may include a space of 180 miles long, by from twenty to fifty miles wide. A large part of this is undoubtedly barren and unproductive, and must for ever remain so. The part that is deemed good soil, is inundated annually, not for any great length of time, yet sufficiently long to make it unfit for advantageous settlement. The high prairie is spoken of as being in general barren, and as affording but little good pasture.

" The crops are usually ripe in June, which enables the wheat and Indian corn to be gathered before the summer drought begins. There is usually a rainy season of three months, but during the year of our visit no rain had fallen; and from every crop having failed, the inhabitants had been living upon their cattle. The cattle suffered almost as much as the crops, and large numbers of them died from starvation. On this account the inhabitants had forborne to kill their cattle for hides, believing it to be a great loss to do so, as the weight was so much depreciated as to pay little more than the labour of slaughter and preparing for market.

" The variety of game in this country almost exceeds belief. The elk may be said to predominate, but there are also many bears, black-tailed deer, wolves, foxes, minxes, hares, musk-rats, badgers, antelopes, and ovis montana. The wolf is reported by Dr. Marsh to be the same as the prairie wolf of the Upper Mississippi, but not the one described by Say. The fox is the same as the gray one of the wooded parts of the United States. According to Mr. Peale, the black-tailed deer is the only species found in this country. The ovis montana has been frequently seen by Dr. Marsh; its coating is altogether hair, without any admixture of wool. No specimens were obtained for the expedition.

ESTABLISHMENTS ON THE WEST AND SOUTH OF THE BAY OF SAN FRANCISCO.

On the west side of the Bay of San Pablo, are some of the finest tracts of country in California. One of these is called the Valley of Nappa, another

that of Zonoma, and a third San Rafael. In Zonoma is situated the town of the same name, the residence of General Vallejo, and the mission of San Rafael. The fertile country extends across to Ross and Bodega, the two Russian settlements before spoken of."

ZONOMA is the seat of government, and is situated in an extensive plain, with some high hills for its southern boundary. The plain is covered with fine oaks, and there is a never-failing stream of water passing through it. There is besides an inlet from the bay, which allows a boat navigation to it of about twelve miles.

Zonoma contained only the following buildings: "the general's house, built of *adobes*, of two stories, which fronts on the public square, and is said to be one of the best houses in California. On the right of this is the residence of the general's brother, Salvadore, and to the left, the barracks for the accommodation of the guard for the general, consisting of about twenty fusileers. Not far removed is the old dilapidated mission-house of San Francisco Solano, scarcely tenantable, though a small part of it is inhabited still by a padre, who continues, notwithstanding the poverty of his mission, to entertain the stranger, and show him all the hospitality he can."

The anecdotes related to Captain Wilkes of the general commanding, all showed a disregard for the lives, as well as for the property and liberty of the Indians, and "*gente de razon.*" This general acted with the same impunity as all his predecessors, with one or two exceptions, have done before him. As an instance of the lawless acts of the governors, it is said that one of them entertained the idea of training the Indians as soldiers, and a company of them which had been drilled made such proficiency in the use of their arms, that his excellency became alarmed, and forthwith ordered them all to be shot! Captain Wilkes had little doubt that this story might be true, for the value of an Indian's life in the eye of these rulers, scarcely exceeds that of one of the wild cattle. The commandant-general is frequently said to hunt them, and by his prowess in these expeditions has gained some reputation.

Salvadore Vallejo, the general's brother, was engaged in agricultural pursuits, and particularly in raising cattle, "which," says Captain Wilkes, "under the governor, he has the special privilege of supplying to vessels, which he does at prices that insure a handsome profit. In times of scarcity, vessels are sure to be supplied by applying to the governor, who will order supplies to be furnished, and even obtain them by compulsion. On my arrival, finding that we wanted supplies, and not knowing how long (in the event of an accident to our land party) I might be detained, I was advised to apply to the commandant-general, through whom I would be sure of obtaining them. I therefore despatched a note by an officer, whom the general treated with great politeness, and returned for answer, that he could supply me with the following articles:—Lima beans, wheat, potatoes, and other vegetables, which we had been unable to obtain. Fortunately for us, as well as for the lower orders and Indians, the party arrived,

and we were not under the necessity of making use of his powerful intervention. The general, I was told, considers every bushel of grain as much at his command as he does the persons of the people, and the property of the state. Zonoma is to be the capital of this country, provided the general has power and lives long enough to build it up. An idea has got abroad that he is looking to the *gubernatorial* chair, and to be placed there by the same force that has raised Alvarado and himself to the posts they now occupy."

Zonoma is on the road that leads to Ross and Bodega, and by this route Captain Suter had transported all the stock he purchased of the Russians.

The state of society here was found, by Captain Wilkes, "to be exceedingly loose; envy, hatred, and malice, predominated in almost every breast, and the people were wretched under their present rulers;" "Female virtue," he regrets to say, "is also at a low ebb; and the coarse and lascivious dances, which meet the plaudits of the lookers-on, show the degraded tone of manners that exists."

The mission of San Rafael is situated in a fertile valley about twelve miles from Sansalito. It at present consists of a large building with a small chapel attached; both in a tolerable state of preservation, and under the superintendence of an Irishman, who has been appointed to the charge from its being considered a place of emolument, through his interest with the governor. A padre resides at this mission for six months of the year, and officiates as priest.

On the 24th of October, during Captain Wilkes's visit, a *fête* was given at this place, in honour of the patron saint; and it was rumoured that there was to be a grand bull-fight. The latter was miserably conducted. "The bulls had greatly the advantage, and the men and horses were tumbled about until both became quite shy. They had cut off the tips of the bull's horns, which was a fortunate circumstance for both horses and riders, who received no material injury. There was no bull and bear-fight, in consequence of their not being able to procure one of the latter animals. In the fights between the bull and bear, it is said, that however strong and savage the bull may be, the bear is always the conqueror: the only part of the bull he endeavours to attack is the tongue, by seizing which he invariably proves the victor.

"When the fights were over, dancing was resorted to, and continued during the evening and all night. It was accompanied with hard drinking and uproarious conduct. Mr. Murphy's entertainment was considered fully equal to any that had been given for some time, and particularly the latter part of it."

In order to ascertain the condition of the missions at the south end of the bay, Captains Wilkes and Hudson left the Vincennes at St. Francisco, on the morning of the 29th, and stopped a short time at Yerba Buena for a guide to point out the passages through the shoals, and the entrance to the creek that leads up to the *Embarcadero*, or lading place, whence the people of the mission usually ship their hides.

In consequence of the incapacity of the pilot, their boat grounded, and they were detained so long, that night overtook them before they entered the river Caravallio, which runs in a tortuous direction to the *Embarcadero*. It was so narrow that they were compelled to haul the boat along by the grass and rushes on each side, and as they passed along at night, the water-fowl were, while sleeping on the water among the rushes, alarmed by the noise, and flew up in thousands from the marshes. The noise of their fluttering resembled that of the surf of the sea; and as they rose thousands seemed to follow thousands until the sound died away in the distance, and again seemed to approach in an opposite direction, while in the darkness not a bird was to be seen, although they must have passed only within a few feet of the boat.

"At the *Embarcadero*," says Captain Wilkes, "we found no house or accommodation of any kind; but the guide soon led us to what he termed the road, which was found marked by the huge ruts made by the ox-carts."

After proceeding a mile over a level plain, they reached the *estrancia*, the out-works of which was a broken *coural*, with the ground covered with the bones, hoofs, and horns of cattle.

They were greeted by the sudden appearance of a huge Californian, more than six feet in height, and proportionately large, who stalked towards them in his shirt, and in a gruff tone he demanded their wants. Having received satisfactory explanations, with a cigar given him as a token of friendship, he called up the whole family, which consisted of a mother, two daughters, and several other children. "These," says Captain Wilkes, "after dressing themselves, came forth, and greeted us with genuine hospitality, with such pleasant faces and cheerful talk, that it was really delightful to find ourselves in such quarters. They immediately set about providing us with supper, consisting of tea, tortillas, valdivias, ollas, with eggs and a steak; and while this was in preparation by some, others were arranging the beds, and changing the furniture of the sleeping-room. All this was done while the mother was talking and waiting upon us; and, after supper was over, she pointed to our room, and then excused herself, by saying she must provide something for the sailors who had accompanied us; whilst we retired to rest much fatigued with our jaunt. We arose about eight o'clock, and consequently missed our chocolate, which is given at an earlier hour, and could get no breakfast until eleven o'clock.

"While horses were sought for us, we spent the time in looking around the premises. The house was a long one-story *adobe* building, with a thickly thatched roof, forming, by its projection, a piazza in front, supported by columns. There were many enclosures about the house that gave it the appearance of a farm-yard and slaughter-house combined. Bones, hoofs, horns, and pieces of hide, were lying in every direction, and the ground was indented with the feet of cattle. Ducks, dogs, and fowls were picking at the bones and offal. There were one or two ox-carts, of clumsy proportions, a beehive and a ley-vat, formed of hide and

suspended to four stakes, in the shape of a large bag hung near by. At a short distance from the house was the vegetable garden, where every thing grew in profusion, although without care. The only trouble in gardening was to put the seed into the ground, and await the result. This *estancia* is situated between two copses of wood, that grow on the banks of the brook that winds past it, and nearly join in the rear. In front is a plain extending fifteen or twenty miles to the foot of the *Sierra*, which forms a pleasing and bold contrast to the flat surface, on which nothing is seen but here and there a small group of cattle, and immense flocks of wild geese on some shrub, which, owing to the refraction, appears almost detached from the surface, and with dimensions so much enlarged as to appear like a great tree. The plain at this time was of a dark hue, somewhat resembling a light bronze colour, in consequence of the vegetation having been scorched up for many months."

The mission of Santa Clara, which they visited, though it had, at a distance, a respectable appearance, consisted merely of a long line of huts, formerly occupied by the Indians. The church and mission-house adjoining, were in a dilapidated state. The mission-house was then occupied both by the administrador and the *padre*; a wall dividing the temporal from the spiritual concerns of the establishment. In the rear of the mission, there is a quadrangle of low sheds, in which the domestic manufacture of candles, preserves, baking, and a variety of other duties are performed.

The garden was surrounded by a high adobe wall, and its gate is always kept locked. It was from one and a half to two acres in extent, and planted with vines. Grapes are cultivated without trellises; the grapes were generally of the sweet Malaga kind. The mission claims the first picking to make their wine and preserves. The inhabitants, the women of the "*gente de razon*," pluck afterwards, and then the children are allowed to gather the remainder. In this garden they also grow fruit of all kinds, both of the tropical and temperate climate, which they represented as succeeding admirably well. A few barrels of wine are annually made, but nothing can be more rude than the process of preparation. The tillage is performed with ploughs formed of a crooked piece of timber four to six inches square, which is merely used to loosen the ground to a depth of three or four inches; yet such is the fertility of the soil, and level nature of the land, that the crops yield an average of from sixty to eighty for one sown. The ploughs are drawn by oxen, and managed by the Indians.

At the missions throughout the country, four meals are daily taken: at an early hour, chocolate; at eleven o'clock, breakfast; at two, dinner; and at seven, supper. The dinner and supper are the principal meals, and at them the Californians are described as indulging to the extent of gluttony.

"After some difficulty in procuring horses," Captain Wilkes says, "we set out on sorry nags, and on leaving the mission entered an avenue lined on each side with large trees. These I understood had been planted at an early day by one of the padres, in order to protect the people from the sun during the celebration of the church festivals, and to leave no excuse to the inhabitants of the Pueblo for not visiting the mission-church. Just before arriving at the Pueblo, we crossed over one of the tortuous branches of the Rio Guadaloupe, some twenty feet wide, and had a view of the Pueblo. It seemed as if this were a gala day, and as if every one were abroad celebrating it on the banks of this river, or rather creek, the overflowing of which had served to keep the grass green for a considerable space around. Instead of its being a festival, it turned out to be a general washing-day of the village, and the long lines, trees, bushes, &c., were all hung with the many coloured garments, which, with the crowds of men, women, and children, and some cattle moving to and fro, or gathered in small groups, gave the whole quite a pleasing effect. I was told that the Pueblo of San Jose had a larger number of inhabitants than any other in Upper California; but as we rode into it, it seemed almost deserted.

"The alcalde who gave the party a cordial reception, made his appearance like a French pastry-cook, with his white cap and apron. He was a short, dapper, rosy-cheeked man, by birth a Frenchman, but had been now twenty years settled in the Pueblo; was married, and had eleven children, who looked both healthy and dirty. The moment he understood who his visitors were, he did them the honour to doff his white cap and apron; and shortly after he appeared in a *round-about* ornamented with embroidery. He spoke his native language imperfectly, intermingling a great many Spanish words with it. He described himself as the *sous préfet*, and said, that he administered justice, inflicted punishment, and had the ability to make the inhabitants as happy as he thought they should be. On my asking, by what laws he administered justice, his answer was—by what he thought right—he had very little trouble, except guarding against the attacks of the Indians, and preventing them from stealing horses, of which he had great fears, he had, therefore, provided for the safety of his own by keeping them in a small shed attached to his house, and within a locked gate.

"He considered the Pueblo as in danger of attacks from the Indians, who were now in great numbers within striking distance, and had become very troublesome of late in driving off horses of which they had lost 300 or 400, and he said that pursuit was impossible, as they now had no troops. He entertained us with wine and beer of his own making.

"We took our departure a short time before sunset, amidst the gathering in of the villagers, with their goods and chattels, to a place of safety. There are two Americans settled here, who own mills. The evening was a beautiful one, and

we had a delightful ride back to the mission, and our horses, knowing they were on their return, were quite mettlesome.

"The mode of conducting business in this part of California," says Captain Wilkes, "is peculiar. Vessels, on reaching the coast, employ, as a supercargo or travelling agent, some person well known throughout the country, who visits all the pueblos, missions, and estancias, as a traveller, passing from place to place without any apparent object of business. He has thus an opportunity of inspecting the worldly affairs of those to whom he desires to sell; and if he finds them apparently thrifty, he produces his card of patterns, and soon induces a disposition on the part of his host or hostess to buy, being careful to secure in payment as much of their worldly goods as he can, and trusting them for the rest of the indebtedness. A few live cattle delivered by each purchaser at the neighbouring Pueblo, become by this means a large herd, which is committed to cattle-tenders who in due time slaughter them and deliver the hides in exchange for merchandise. A large amount of goods is thus disposed of to a very considerable profit. Large cargoes, consisting of a variety of articles, of both American and English manufactures are thus sold. From the state of the country, it has been difficult to obtain payments or returns in money; but the debts have usually been paid in cattle. When hides are given in payment, they are valued at two dollars, and are at all times the common currency of the country. No money is in circulation, unless what is paid by the foreign merchants; and in lieu of change an extra quantity of goods is taken, which excess is usually to the disadvantage of the buyer."

At *Santa Clara*, the party found beds that were clean and comfortable, though the apartment had a strong smell of cordovan leather. The only places of deposit for clothing, &c., was in the estancia, in large trunks.

"We were up betimes, but were threatened with disappointment in our horses. The kind and attentive *Donna Aliza* served us with chocolate and toast, and prepared cold tongues, chickens, and ample stores of bread for our use.

"After an hour's preparation, we took our leave and galloped off, in company with *Don Miguel*, who proposed to accompany us some six or seven miles on our way, to visit some of his herds, they were then feeding on the prairie. We had not proceeded far before we were overtaken by the person who had them in charge, coming at a furious gallop. He was mounted on the best horse I had seen in the country, and dressed after the Californian fashion, in a dark brown cloth jacket, thickly braided, both before and behind, with slashed sleeves, showing his shirt elegantly embroidered, both on the breast and sleeves; velvet breeches of bright blue, secured around his waist with a red sash, and open at the sides, ornamented with braid and brass bells in abundance; below the knee he wore leather leggings, fastened with garters, worked in silver, and below these, shoes, over which were fastened large silver spurs, with the heavy rowels of the country; on his head was

ties a red bandana handkerchief, and over that a huge broad-brimmed sombrero, with peaked crown, covered with an oil-silk cloth; the whole decorated with cords, aiguillettes, and ribands, with a guard-cord passing under the chin. His horse was equally well caparisoned, the bridle being decked with silver, as were the tips of his large wooden stirrups; with pillion and saddle-cloths in abundance. Few riders had so gay an air, or seemed to have so perfect a command of the animal he rode; and until we arrived at the wood where his Indians were looking out, he was an object of great attraction, assuming all the airs and graces of a person of high rank.

"After galloping for several miles, we reached a few trees and bushes, that are designated as the 'woods.' Near by was a large herd of cattle feeding. The *rancheros* we found lying about, in huts of hide, with a fire in front, and the leg-bone of an ox roasting over it; the skulls, bones, and the offal, lay about, with hides here and there pegged to the ground."*

The country which the party traversed on returning from the south to Yerba Buena, was then destitute of both water and grass, and the weather oppressively warm. In some places the scenery was picturesquely diversified by scattered oaks, laurels, and shrubs, but, to all appearance, the soil was unfit for cultivation. Wherever there was any running water, a pond, or vegetation, large flocks of geese and ducks were seen.

"The term *estancia*," observes Captain Wilkes, "seems to give one an idea of something more extensive than a small farm; it sounds more noble and wealthy; but whatever had been our opinion before, the reality disappointed us. Senor Sanchez's *estancia* at a distance was quite a respectable-looking building; the broad shadow cast by its projecting roof gave it a substantial and solid appearance; but a nearer approach dispelled these favourable impressions, and showed its uncouth proportions, as well as the neglect in which the whole was kept. The way to the house, which stands on a knoll, leads through miry places and over broken-down fences, winding around dilapidated ox-carts, over troughs, old baskets, dead hogs, dogs, and fowls, all huddled together. Rude articles of husbandry occupied the sides of the building."

SOUTHERN OREGON.

THE party which, under the instructions given by Captain Wilkes, to the commander, departed on the overland expedition from Oregon to California, left Fort

- * The hides of the cattle that die, or that are killed for food, are cured in this way.

Vancouver, and proceeded by the way of the Hudson Bay Company's farm on Multunomah or Wapautoo Island, near the place where Captain Wyeth had erected a fort. They then crossed the river and went towards the Faulitz Plains, passing on their route a large grazing farm belonging to the company, and those of numerous settlers, who supplied them with fresh horses. In this direction they describe the country beautiful and the land rich, travelling over the prairies and hills. The hills were wooded with large pines, and a thick undergrowth of rose-bushes, rubus, dogwood, and hazel. The prairies were covered with variegated flowers, and abounded in *nuttalia*, columbines, larkspurs, and bulbous-rooted plants.

Some of the party had attacks of ague and fever. Dr. Whittle ascribed these attacks to the length of time, nearly five weeks, during which they had been encamped on the Willamette, and particularly to the position of the camp, immediately on the bank of the river, where it was subject to damp and fogs.

The settlers in the Willamette valley are described as generally those who have been hunters in the mountains, and were still full of the recklessness of that kind of life. Many of them, although they had taken farms and built log-houses, could not be classed among the permanent settlers, as they were ever ready to sell them and resume their old favourite trapping pursuits. The party proceeded up the Willamette river, until they reached Champooing, where they disembarked.

The country in the southern part of Willamette valley is described as stretching out into wild prairie-ground, gradually rising in the distance into low undulating hills, which are destitute of trees, except scattered oaks; these look more like orchards of fruit-trees, planted by the hand of man, than groves of natural growth, and serve to relieve the eye from the yellow and scorched hue of the plains. The meanderings of the streams may be readily followed by the growth of trees on their banks as far as the eye can see.

On the morning of the 9th they had a severe frost. In the course of the day they passed Creole Creek, and encamped on the *Ignas*. The atmosphere during the day had become thick, owing to the smoke arising from the burning of the prairie. Here they prepared themselves fully for their journey, by trimming their horses' hoofs, and adjusting other matters. The soil, a red decomposed basalt, appeared well adapted for grazing and wheat-lands.

On the 10th they travelled over a country intersected with small creeks, more hilly, and naturally yielding good pasturage. The rocks were previously basalt; those which now appeared were a whitish clayey sandstone. The soil also varied to a grayish brown. The surface had lately been overrun by fire, which had destroyed all the vegetation, except the oak trees, which appeared not to be injured.

After passing Lake Guardipii, which is about five hundred yards long, they encamped on the Lumtumbuff River, which is a branch of the Willamette. This river is a deep and turbid stream, branching out in places like a lake, but, in general, narrow and fordable.

On the 12th the route led across a parched-up prairie, portions of which were composed of gravel and white-sand, mixed with clay. "The paths were very rough, owing to the soil, which was much cut up by the herds that had been driven through, and which, on becoming hard, was exceedingly fatiguing to the horses. Bands of wolves were met with, and were, throughout the night, constantly howling on various parts of the prairie. The party had hitherto made from fifteen to twenty miles a day; and in travelling this day the animals suffered a great deal from want of water. They encamped on the Malé Creek, which was about thirty feet wide, and ran in a northerly direction.

On the 15th they arrived, with their horses exhausted from want of water, after travelling from fifteen to twenty miles a day, at the base of the Elk Mountains, which divide the valley of the Willamette from that of the *Umpqua*. The ascent and descent of this ridge slope gently. The hills were covered with pines, spruces, and oaks, with an undergrowth of hazel, arbutus, rubus, and cornus. Through these thickets they forced their way along the back of one of the spurs, and were three hours in ascending to the summit, which was fifteen hundred feet above the plain.

The route over the Elk mountains was tedious and difficult, owing to the obstruction caused by large fallen trees. Before ascending the mountain, they had crossed several small streams over which the Hudson Bay Company had constructed bridges for the passage of their flocks of sheep. At their place of encampment, during night, ice formed in the pools to the thickness of a quarter of an inch, and the thermometer had fallen to 26 deg.

They descended the following day, and encamped on the Elk river, and the hunters killed a large elk. Lieutenant Emmons, accompanied by three of the party, proceeded from the encampment for Fort *Umpqua*, fourteen miles distant. They found the country for the first five miles hilly, with scattered patches of pines, and it appeared in some places suitable for cultivation. The trail afterwards carried them over a succession of steep hills and through deep ravines, almost impassable for the horses, which were nearly then worn out with the journey.

Fort Umpqua, at which the detachment arrived greatly fatigued late at night, was found, like all those built in Oregon, enclosed by a line of high pickets, with bastions at diagonal corners; the whole area about two hundred feet square. It is situated more than one hundred and fifty yards from the river, upon the edge of an extensive plain, and was inhabited by only five men, two women, and nine

dogs, and contained a dwelling for the superintendent, as well as storehouses, and some smaller buildings for the officers' and servants' apartments. An unusual number of Indians of the Umpqua tribe were at the time assembled around the place. The superintendent said they had shown a strong disposition to attack and burn the fort. Lieutenant Emmons stated its latitude 43 deg. 24 min. north. From the account given by the superintendent, the river Umpqua flows in a north-westerly course a distance of thirty miles before it enters the sea. "It is navigable from the ocean to the place where the Umpqua and Elk rivers unite, about three miles below the fort, for vessels drawing not more than six feet water. The mouth of the Umpqua offers no harbour for sea-going vessels, and has only nine feet water on its bar. Its entrance is very narrow, with low sands on the north and south sides. The Umpqua fort district yields a considerable supply of furs; principally of beaver of small size."

Captain Wilkes says, the regulations of the company do not seem to be so strictly in force here as to the north of the Columbia, in relation to buying the small skins. These, he understood, they refuse to purchase there; and every Indian who is found with a small skin is refused supplies of ammunition, which has been found sufficient to prevent the killing of the young animals. Here they also obtain from the Indians some land and sea otter, deer, and bear skins.

The superintendent at Fort Umpqua exchanged strong horses for the exhausted horses of the detachment, and supplied Lieutenant Emmons with some bear and deer skins, to be made into shirts and trousers, which several of the party were in want of.

The river at the fort is one hundred and twenty yards wide, quite rapid, obstructed with rocks, and only navigable for canoes. The weather was cold and foggy. The soil in the vicinity is fertile, producing plentiful crops of maize, wheat, and potatoes. In the garden attached to the fort, are grown the vegetables common in the United States, with melons, both water and musk. Cattle are said to thrive well.

In respect to this part of Oregon and the route to California, Captain Wilkes observes—"Few of these men seem to know the reason of the whites meeting with so few mishaps in passing through an apparently hostile country; and many deem it is owing to their own skill and prowess. The truth is, that as soon as the Indians have traded with the whites, and become dependant on them for supplies, thenceforward they can be easily controlled. If disposed to be hostile, the fort at Umpqua would offer no resistance to their attack; but they are aware that all their supplies of ammunition, tobacco, blankets, and other articles of necessity, would be at once cut off, which would reduce them to great distress. The self-interest of the Indians is, therefore, the true safeguard of the white traders."

In the country surrounding Fort Umpqua a species of oak grew, resembling in its size and appearance that of the Willamette, excepting the lobes of the leaves, which were spiral at their termination; the acorns were larger and more deeply set in the cup. A yellow honeysuckle grew also on the banks of the river.

During the following day they passed over basaltic hills, and descended to another plain, with a loamy soil. The prairie was set on fire by the Indians, with the view, it was suspected, of obstructing the route.

Lieutenant Emmons the following day deviated from the usual route, and proceeded by the upper ford or pass across the Umpqua, as he had reason to believe that the Indians had made preparations to obstruct his passage at the lower ford.

Several of the party being in a sickly state, Lieutenant Emmons, after crossing the Umpqua, encamped in a beautiful oak-grove. A new shrub was met with resembling the shrubby geranium of Hawaii. A beautiful laurel (*laurus ptolemaii*), with fragrant leaves; a canothus, with beautiful sky-blue flowers of delightful fragrance; a tobacco[®] plant (*nicotiana*), of foetid odour, with white flowers. The first grizzly bears were seen; the white tailed deer was lost sight of, and the black tailed species met with. Elks were seen in great numbers.

On the 20th the party moved onwards at an early hour, and passed, during the day, through valleys and over narrow plains, that afforded good pasturage.

They encamped on the south branch of the Umpqua river, having travelled along its eastern banks for some miles.

On the following day their route along the bank of the stream was over a country of the same description as before. Passing some stray Indian deserted camps they approached the Umpqua mountains, and stopped at the usual place to encamp previous to commencing the ascent. The trappers had all become reconciled to the arduous journey, and seemed willing to obey orders, as they had entered a hostile country, in which it would be dangerous for any one to straggle or desert.

On the 22nd they began a most difficult journey across the Umpqua mountains. The path upwards was narrow, and through a dense underwood. At times they cut their way through the brushwood following each other, forming a file of nearly a mile in length. Ascending an abrupt height of one thousand feet, many of the pack horses stumbled, but without any material accident. On the top was a small grassy plain, along which they travelled for a short distance, after which they descended rapidly into a valley, where water was found after passing the thickets. The woods had been lately on fire, and many of the trees were still burning. The fire had been lighted by the Indians for the

purpose of causing the trees to fall across the path with the view to impede the party, and in other places some of the branches were tied together across the trail. All the wood and ground was charred, and the party were completely covered with charcoal dust. From the summit of this ridge a view is had of a confused mass of abrupt ridges, between which lie small valleys. The whole range was thickly wooded with a variety of trees, among which are *pinus Lambertiana* (the first time it had been met with), oaks, arbutus, *prunus*, *cornus*, yews, dogwood, hazel, *spiraea*, and *castanea*. Dense wreaths of smoke were observed in various points: these were supposed to be from the fires of savages on the watch for the party and made as signals to muster for an attack if a favourable opportunity should offer. The *pinus Lambertiana* was not found quite so large as described by Douglas. The cones, about fourteen inches long, were small in circumference.

They encamped on the plain of the Shaste country, separated by the mountains which they had crossed from the Umpqua valley. The greatest elevation of the range was, by the temperature of boiling water, one thousand seven hundred and fifty feet. Among the plants they found the bulb used in California in the place of soap.

The next day's journey was over undulating hills; and, after travelling about twenty-three miles, they encamped on Young's Creek, a stream a few yards wide, and a foot or less deep, which may be traced from the heights for a long distance by the trees which border it. They were now within the country of the Klamet Indians, known as *rogues* or *rascals*, which name they have obtained from the hunters from their villany.

On the 25th they continued their journey over a country resembling that traversed the day before, with a light loamy soil, and less wood. The *pinus Lambertiana* was more common. The trees of this species were not beyond the usual size of the pine tribe, but their cones were about fifteen inches in length. Some of the sugar produced by this tree was obtained: it is of a sweet taste, with a slightly bitter and turpentine flavour. It resembles manna, and is obtained by the Indians by making a cavity in the tree, whence it exudes. This sugar is a cathartic, and affected all the party that partook of it; yet it is said that it is used as a substitute for sugar by the trappers and hunters.

Towards evening they entered on the plains of Rogues or Tootootutnas River, and encamped on its banks. This is a magnificent stream, upwards of 100 yards in width, with a rapid current flowing over a gravelly bottom at the rate of three miles an hour. It abounds in fish, on which the Indians chiefly subsist. The banks are low and overgrown with bushes. The soil is poor and sandy. Two or three hundred yards from the river there is a sudden rise of ten feet, and another at the same distance beyond, from the last of which the land rises into

hills from six hundred to a thousand feet in height. The formation of these hills and of the soil changes to granite and sand.

An Indian hunter killed a deer at some distance from the camp, and while in the act of skinning it was surprised by a party of Indians, who shot a flight of arrows over him; he sprang to his horse, seized his rifle, and, according to his own account, killed one of them, but left his game behind.

Towards night a canoe with two Indians approached the camp, which they were not suffered to enter. These canoes were made of trees hollowed out, square at each end. The 26th they passed along the banks of the Rogues' River which runs in a westerly direction. The Indians were observed spearing salmon from their canoes.

As the party proceeded the river was inclosed within a ravine between the mountains. The river flowed in rapids, owing to its ragged channel, and its banks were faced with cliffs of jagged rocks. In the afternoon they reached the Forks, and followed the southern branch, which brought them to the place of encampment, where a party accompanied by a Mr. Turner were attacked, and most of them massacred by the Indians, who were allowed to enter the camp in numbers as friends, when they suddenly rose upon the whites, nine in number, at the time of the attack attending to their horses. Two of the party were killed immediately. Turner, who was a strong, athletic man, was seated by the fire when the fray began. He snatched up a fire-brand and defended himself, dealing destruction around him until his wife brought him his rifle, with which he killed several Indians.

The party had suffered exceedingly before reaching this place from attacks of the ague. The chills were violent while they lasted, and several were obliged to stop for an hour or two during their continuance. The sudden and great atmospheric changes which constantly occurred tended to aggravate if they did not produce these attacks, the thermometer during the day frequently standing above 80°, at night fell nearly as low as the freezing point.

On the 27th they proceeded along the bank of the river; the Indians were gathering, and were heard yelling on the opposite bank. Precautions were taken to clear the path from any dangers by sending a detachment of foot in advance of the main party. The high perpendicular bank confined the path to very narrow limits, rendering it a dangerous point of attack from Indians, who might conceal themselves among the rocks on the opposite side of the rapid river.

A few miles beyond this pass the party left the banks of the Rogues' River, taking a more easterly route, over a rolling prairie, which is bounded by low hills, resembling the scenery of the Willamette valley. The soil, in some few places, was good, but generally gravelly and sterile. A few Indians were seen at a distance on horseback, who fled like wild animals. Some of the horses,

from being exhausted were left behind. In the afternoon they encamped on Beaver creek, so named by Lieutenant Emmons from the number of those animals which were seen building dams.

An antelope was killed, of a dun and white colour, and its hair was remarkably soft. The Indians take this animal by exciting its curiosity. For this purpose they conceal themselves among the nearest bushes to its feeding grounds, and making a rustling noise soon attract the antelopes towards the place of ambuscade, when it is shot. If there are others in company they will frequently remain with the dead or wounded one until they are all killed. This species of antelope, according to the hunters, only inhabit the prairie, being seldom seen even in the open wooded country. The flavour of the flesh was considered superior to that of the deer.

On the 28th they advanced to the foot of the boundary range, where they encamped. The country resembled that passed over the day before, and the woods were oak and pine, but none of the *Lambertiana*. On the hills granite was observed.

On the 29th commenced the ascent of the *Boundary Mountains*, which separate Mexico from the United States. This range rises from 1200 to 2000 feet high. Some of the summits have a mural front; the features of all the ridges present a basaltic appearance. In some the sandstone and fossils protruded.

At the summit of this range, they had a first view of the Klamet valley. It was walled on both sides by high basaltic hills, rising above each other. Mount Shaste, a high snowy peak, of a sugar-loaf form, rose through the haze, southward about forty-five miles distant. They descended on the south side, and encamped on the banks of the Otter creek, within a mile of the Klamet river.

This ridge divides the waters flowing to the north and south. The soil was very sandy.

In consequence of the illness of some of the party, the whole remained nearly stationary on the 30th. The surrounding country appeared to be a broad prairie valley, dotted with oaks and pines, with serpentine lines of trees marking the edges of the streams until lost in the distance. This valley lies in the midst of hills, clothed with a forest of evergreens, and through this the waters of the Klamet flow, passing beyond it, through a narrow valley on the west. The most remarkable object in this place is an isolated conical peak, which rises immediately from the level plain to the height of 1000 feet, and is destitute of trees except on its summit.

On the 1st of October, they proceeded onward at an early hour. The weather was sultry, and the atmosphere smoky; they crossed the Klamet river, where it was about eight yards wide, about five feet deep, with a pebbly bottom, and with low banks destitute of bushes. Both above and below the ford, there were rapids.

From the appearance of its banks, it is subject to overflow. The prairie, after crossing the river, became dry and barren, and in which a solitary *bute* occasionally rose from 100 to 500 feet high. These *butes* are considered by Captain Wilkes as peculiar to this country. Heaps of volcanic rocks, consisting of large masses of grayish or reddish porphyritic lava, in blocks of from one to ten cubic feet in size, were lying on the surface in disorderly piles. To the eastward, the lava heaps became still more numerous.

They encamped on the southern branch of the Klamet river, which is a beautiful, clear, and rapid stream, where they found a small spot of grass, the only one they had seen during the day.

On the 2nd, they travelled over an undulated prairie, without water, the low ground was incrusted with salt, the soil appeared better than that passed over the day previous. Some patches of spiraea and dogwood were met with, and rather a better growth of grass.

Large herds of antelopes were seen, but none of them were killed. The hunters saw also mountain sheep with large horns. They found some holes containing water, from the want of which the horses suffered greatly; and they rushed into these holes with their packs, and stuck in the mire until dragged out, requiring much labour to extricate them. The party then turned off from the Klamet valley, which is far inferior to any portion of the country they had passed over: the formation appeared to be composed of a dark green serpentine. They encamped a little beyond these hills, where boulders of coarse syenite formed the bed of the creek and its banks. The hornblend crystals of the latter rock were often two inches long, set in a white granular feldspar.

At this camp they were visited by a party of Shaste Indians, who were allowed to enter, and for some time there was a brisk trade for their bows and arrows. These Indians were a good-looking race, much better proportioned than those more to the northward; their features more regular, and do not compress their heads. They wore their black hair hanging down to their shoulders.

They exhibited their archery, by putting up a button at twenty yards' distance, which one of them hit three times out of five: the successful marksman was rewarded with it, and a small piece of tobacco. They use these bows with such dexterity as to kill fish, and launch their arrows with such force, that one of the men remarked, "that he would as leave be shot at with a musket at the distance of a hundred yards, as by one of those Indians with his bow and arrow." These bows and arrows were beautifully made: the former are of yew, and about ten feet long; they are flat, and an inch and a half to two inches wide, and backed very neatly with sinew, and painted. The arrows are upwards of thirty inches long; some of them were made of a close-grained wood, a species of spiraea, while others were of reed. They were feathered for from five

to eight inches, and the barbed heads were made of finely wrought obsidian: the head is inserted in a grooved piece, from three to five inches long, and is attached to the shaft by a socket: this barb, when it penetrates, is left in the wound when the shaft is withdrawn, a very shallow blood channel is sometimes cut in the shaft.

Their quivers are made of deer, raccoon, or wild cat skin; these skins are generally whole, being left open at the tail end.

A disease was observed among them which had the appearance of the leprosy.

As to dress, they can scarcely be said to wear any, except a mantle of deer or wolf skin. A few of them had deer-skins belted around their waists, with an ornamented girdle.

On the 3rd, the exploring party travelled up the plain, from which they entered a forest on the slopes of the Shaste Range, by a path through the wood broken up by knolls of trachyte. On arriving at the top of the ridge, they had a magnificent view of the snowy peak of Mount Shaste, with an intermediate one destitute of snow, with tall pines growing almost to its summit. The conical shape of the *Shaste* indicated its volcanic origin, although no crater was perceived. Its height is said to be 14,890 feet. Lieutenant Emmons estimates it as not so high.

After passing this ridge, they met the head waters of the Sacramento flowing to the southward, and their camp was pitched on the banks of another stream, that appeared to flow from the Shaste.

On the 4th, they ascended into the region of pines, some of which, the *Lambertiana*, were measured, and found to be eighteen feet in circumference, with cones sixteen inches long.

They encamped on Destruction river, which runs from the mountain range towards the south, in a place where they found food for their horses, and water in abundance. The air was pleasant; the forest protected them from the rays of the sun, and game was plentiful. Near the encampment in a north-west direction was a mountain ridge, shooting up in sharp conical and needle-shaped peaks, with precipitous sides.

During night, a storm raged from the westward, and occasionally was heard the crash produced by the falling of large pines.

The character of the country had now changed, and, according to Lieutenant Emmons' account, "afforded a new and more extended botanical field, as well as new geological features. The general tendency of the ridges is north and south, but the whole may be classed as a series of valleys and hills thrown in all positions. The hills are for the greater part covered with soil when it can find any place of deposit, and all are richly clothed with vegetation. The principal timber consists of pines and oaks, and there are many smaller plants, of which the flowers must be abundant in the proper season."

They continued along the course of Destruction river until the 9th, when it was joined by a stream from the north-eastward, supposed to be the north-east branch of Pitt river: it was larger than the stream they had been previously following.

They encamped fatigued, with their jaded horses exhausted, late in the evening near a small rivulet, to the westward of the Sacramento.

On the 10th they left the mountains. The width of the range where they had passed was upwards of 100 miles. At one place their guide lost his way; but an Indian woman pointed out the trail.

On descending into the valley of the Sacramento, they met with some Indians, who were known to be friendly.

The botanical character of the country changed suddenly. Instead of firs, pines, &c., the trees were sycamores, oaks, and cotton-wood. The oaks bear acorns, which are equally the food of the bears and the Indians. The prairie bordering the Sacramento at this place is about fifty feet below the upper prairie, which continues regularly for many miles on the same level; the latter falling into the former by a sloping bank.

Many of these Indians joined them. They had some resemblance to the Shaste Indians; most of them were naked; the others had a piece of deer-skin thrown over their shoulders; their faces were marked with an expression of good-humour.

Their food consists principally of fish and acorns; of the latter they made a kind of black cake, by shelling the acorns, drying them in the sun, and then pounding them between stones. They mix this meal with a little water, some arbutus berries, and make it into cakes about two inches thick, when it is wrapped in leaves and baked. It is quite black, and eats like cheese. These acorns are edible in the raw state. The seeds of the different genus of pine are also eaten, particularly a kind peculiar to California. The arbutus berry, which here abounded, is also ground for food. Grapes were also plentiful among them. The game was very abundant, in consequence of the abundance of food, and many antelopes and deer were observed. Large flocks of California partridges and geese were seen: among the birds was a new species of magpie.

The men only of this tribe visited the camp, the women remained at the *rancheria*, which the party visited. It consisted of small dirty huts, built of poles, and divided by coarse mats into a number of small apartments. The whole was surrounded by a brush fence.

The women were inferior to the men in personal appearance; they looked careworn and wrinkled drudges. They prepare all the winter's supply of food, while the men are to be seen lounging about, or engaged in games of hazard. The men are, during the season, occupied in taking salmon, either in weirs, or a long forked spear or fish-gig.

At the rancheria several dances were performed ; and many of the women were tatooed on their arms and body.

From what Lieutenant Emmons could learn there was no difficulty in proceeding in canoes from this place, though there would have been some obstacles to surmount, particularly the fish-weirs.

On the 11th the party proceeded down the westward bank of the Sacramento over an undulating prairie, considered as the most sterile they had met with. The soil consisted of gravel, coarse pebbles, and large stones, mixed with sand. They frequently crossed the beds of streams 300 yards wide, which intersect this part of the country, the pebbles in which are chiefly composed of jasper and white quartz, with a few of basalt, pudding stone, and pieces of slate. They travelled this day twenty-five miles, the longest day's ride on the journey.

On the 12th the party forded the river, and one of the hunters brought in the meat and skin of a large grizzly bear which he had killed.

The river was about three feet deep, and 200 yards wide. They stopped at a place known among the hunters as Bear Camp, from the number of grizzly bears found here ; five of which were shot the same afternoon, with three deer, which were feeding near the camp, all in excellent condition.

The country on the east side the river was more level than on the west, and the soil appeared to be better. Few plants were seen, in consequence of fire having overrun the surface.

The country continued much the same until they came in sight of the Prairie butes, a collection of hills, rising out of the level plain like islands from the water. These may be seen from a great distance. The party encamped on a small creek, called by the trappers the Little Fork of the Butes. The hunters said that the party employed by the Hudson's Bay Company the previous year, had caught more than 100 beavers while pasturing their cattle in this neighbourhood.

On the 16th they encamped, after an ineffectual search for water in the valley, or "kraal" of the butes. Here they found two deep holes of stagnant water, the remains of a rivulet that was dried up. The ground around and near the butes is covered with the bones of animals that resort hither for safety during the season of the freshets which flood the whole of this extensive plain. The soil was loose and crusted over with the deposit left by the water through which the horses' feet sank to the depth of four or five inches : nearer the butes, the soil was harder and strewed with fragments of volcanic rocks. These butes are grouped within an oval vale or plain, which has a circumference of about thirty miles : the longest diameter of the oval district lies in a north-east and south-west direction. The valley passes through the southern part, and opens out on the eastern : it is about seven miles in length ; here the party found water. This valley may be

considered almost as a prolongation of the exterior plain, though parts of it are somewhat higher, as appeared by its not having been overflowed. The highest of the butes was ascertained to be 1794 feet in diameter.

On the 17th they reached the banks of the Feather River, which is dangerous to ford on account of the quicksands. They crossed the stream, proceeded on to Captain Suter's, and arrived the next day at New Helvetia.

The party appears to have entered this valley with a high idea of its fruitfulness, and, with the expectation of finding the soil abounding with every thing that could render it desirable for agriculturists, and susceptible of producing all that would be necessary for the comfort and convenience of man. They were sadly disappointed when they found a large part of it barren and destitute even of pasture, and that even the fertile portion was annually overflowed. The high prairie was equally gravelly and sterile. But Captain Wilkes considers "that there is a sufficient quantity of good soil for a valuable agricultural country, and that it would be capable of affording subsistence to a large number of inhabitants, more, however, from the extraordinary fertility of these grounds than from their extent."

After leaving New Helvetia, the party divided. The detachment under Lieutenant Emmons embarked in the Vincennes launch, which met them a short distance below that place, and reached San Francisco on the 24th.

The other detachment, under Mr. Eld, proceeded by land on the 21st, and commenced their journey, with a young and intelligent Spaniard for a guide. The same day they made fifteen miles, passing over a dry portion of the country, and encamped near two ponds, called in the country, Poros, the only place, as was supposed, where water could be obtained within twenty miles; they however, found some the next day in the Rio Cosmenes, within a mile and a half of the camp. Game was, as usual, very abundant; but the whole country was suffering from the drought.

On the 22nd, about noon, they crossed the river Moguelas, which was then a small stream, but at other seasons, it is said, it cannot be crossed on horseback. They travelled this day as far as the San Juan; the only water that it contained was a small pool. This place had been termed the Frenchman's Camp. Wild ducks and geese had rendered the water scarcely drinkable.

On the 23rd, before noon, they reached the San Joachim, which they found about fifty yards wide and about three feet deep. Under the expectation of finding water, they were induced to ride forty-four miles, but were again disappointed. On the 24th they entered among the Pul Porrice hills, a bare and barren range, composed of sandstone and volcanic rocks. As they approached the mission of San José, the country became more hilly, the oak abundant, and herds of cattle and horses were seen. On their way they fell in with large en-

campments of Indians, who were busily employed in collecting acorns. These men were clothed in shirts and trousers, some in velvet breeches; the women in calico gowns and gay-coloured shawls: several hundred of these were met, each loaded with the beef which is distributed to them in weekly rations. They are annually allowed a short holiday to return to their native wilds during the acorn season.

The approach to the mission which was once a large establishment, had all the appearance of a town, being built in the form of a street of considerable length. In the centre was the church and convent, with large dwelling-houses on each side of it, and on the opposite side the houses for the neophytes, consisting of small, low buildings, with every appearance of filth and decay about them. The walls and gates are dilapidated, and every thing wears the aspect of neglect, both in the buildings and the inhabitants. It is no longer the abode of hospitality and good cheer since it has fallen into the hands of the administrators or agents of the government. Within a large and neglected garden there was some good fruit, and there were still extensive fields of Indian corn, which were formerly cultivated by irrigation.

The reception of the party was neither hospitable nor friendly.

The administrator told them there was no accommodation for them. They met with the tailor to the establishment, an American of Philadelphia, who took them round the gardens, through the churches, and told them that the Indians under the care of the mission were, at the present time, about six hundred, which was only one-third of the number they had two years before. In consequence there was but little cultivation carried on compared to what there had been formerly.

The harvest at the mission had been ruined by the great drought. No rain had fallen for upwards of a year. The vintage, however, had been good, and forty barrels of wine had been made, besides a large supply of grapes for the establishment. The two vineyards comprised about four acres, and besides vines, were stocked with apple, pear, and other fruit-trees. The buildings of the missions were all constructed of adobes and covered with tile roofs.

Mr. Forbes, the agent of the Hudson Bay Company, residing a few miles further, happened to be at the mission, and conducted the party to his house. They found him lodged in a comfortable two-story adobe house, situated on the borders of an extensive prairie, but without any trees or cultivation around it. He entertained them most hospitably.

Although this journey from the Columbia to the Sacramento was attended with much fatigue, yet the labour and suffering were more than compensated by the information it furnished in relation to the southern section of Oregon. Although every thing was not attained that Captain Wilkes intended, yet he felt satisfied that all was done which the limited time and the hostile state of

the country would permit. He says, "To the perseverance and prudence of Lieutenant Emmons much credit is due, as well as to the other officers and naturalists, for the manner in which they co-operated with him. The duties assigned them were performed under the most trying circumstances, while worn down by distressing attacks of the ague and fever. This disease, in particular, affected those members of the party who had been encamped on the Willamette, where it was supposed they contracted it."

EXPLORATION OF NORTHERN OREGON AND THE COLUMBIA RIVER BY THE
UNITED STATES EXPLORING EXPEDITIONS.

SINCE the time of journeys made by Lewis and Clark to the Columbia, and the establishment formed at Astoria by Jacob Astor, several trading adventurers have made excursions across the Rocky Mountains and down the Columbia River. Captain Wilkes, and those under his command, have, however, given us the most complete and satisfactory account of Oregon, its harbours, and the River Columbia. Four years later, Captain Fremont, of the United States Topographical Engineers, was instructed to proceed to the eastern limits explored by the expedition under Captain Wilkes. Both these expeditions having been under official authority, the following sketches of those regions are drawn up, condensed, or abstracted from the journals and accounts which were kept by the respective travellers.

The expedition of Captain Wilkes was directed to the circumnavigation of the globe, to exploring the southern Polar regions, the islands of the Pacific, California, Oregon, and its rivers and harbours, and various parts of the Asiatic and African coasts. He sailed from the Sandwich Islands for the Columbia River, in attempting to pass the bar of which, some time after his arrival, one of the ships under his command was lost, and according to his description of the entrance of this river, its importance for maritime intercourse with Oregon is attended with great, and, except with much delay, almost insurmountable danger.

On the 28th of April, 1841, at 6 A.M., he made Cape Disappointment, which, he says, "we soon came up with. A heavy sea, caused by the strong winds that had prevailed for several days, was running. I, notwithstanding, stood for the bar of the Columbia River, after making every preparation to cross it; but on approaching nearer, I found breakers extending from Cape Disappointment to Point Adams in one unbroken line.

"I am at a loss to conceive how any doubt should ever have existed that here was the mouth of the mighty river whose existence was reported so long before the actual place of its discharge was known, or how the inquiring mind and talent of observation of Vancouver could have allowed him to hesitate, when he must have seen the evidence of a powerful flood of fresh water contending with the tides of the ocean, in a bar turbulent with breakers, in turbid waters extending several miles beyond the line of the shore, and in the marked line of separation between the sea and river water.

"Such appearances must be constant, and if seen, the inferences could hardly be questionable, that the great river of the west poured itself into the ocean at this point.

"Mere description can give little idea of the terrors of the bar of the Columbia. All who have seen it have spoken of the wildness of the scene, and the incessant roar of the waters, representing it as one of the most fearful sights that can possibly meet the eye of the sailor. The difficulty of its channels, the distance of the leading sailing marks, their uncertainty to one unacquainted with them, the want of knowledge of the strength and direction of the currents, with the necessity of approaching close to unseen dangers, the transition from clear to turbid water, all cause doubt and mistrust.

"Under such feelings I must confess that I felt myself labouring; and although I had on board a person from the Sandwich Islands who professed to be a Columbia River pilot, I found him at a loss to designate the true passage, and unable to tell whether we were in a right way or not. I therefore at once determined to haul off with the tide, which was running ebb with great rapidity, and which soon carried us back into the blue waters of the ocean, to wait there until the sea on the bar had in some measure subsided.

"The land near the mouth of the river is well marked, and cannot readily be mistaken, and on the summit of the two capes, are several lofty spruce and pine trees, which the officers of the Hudson's Bay Company have caused to be trimmed of branches nearly to their tops. These serve as conspicuous marks, but our pilot was ignorant of their relation to the channel.

"Our passage from Oahu had been no more than twenty-two days, which is unusually short. The first part of it, until we passed in lat. 28 deg. north, beyond the influence of the trades and variables, had been, as already stated, attended with light and contrary winds.

"The temperature of the air had fallen from 78 deg. to 43 deg., and that of the sea to 46 deg.

"During the night we had boisterous weather, and the ship was very uncomfortable, in consequence of her shipping water in considerable quantities through the hawse-holes, which flooded her gun-deck. As in conformity with

my determination to wait until the surf on the bar should have subsided, the anchors would not be needed for some days, I ordered the chain cables to be unbent, which would permit the hawse-holes to be closed.

"During the night I took into consideration the loss of time that must arise from awaiting an opportunity to cross the bar, and after due reflection came to the conclusion that it would be better to proceed at once to the Straits of Juan de Fuca, and there begin my work on this coast.

"The coast of Oregon to the south of Cape Flattery, is rocky, much broken, and affords no harbours, except for very small vessels. It may be considered as extremely dangerous, particularly on account of its outlying rocks. The soundings off the coast were discovered to serve as a certain indication to avoid danger by not approaching the shore nearer than seventy fathoms.

"On the morning of the 1st of May, we found ourselves well into the Straits of Juan de Fuca, and anchored in Port Discovery on the afternoon of the 2nd of May, forty-nine years after Vancouver had visited the same harbour.

"The Straits of Juan de Fuca may be safely navigated. The wind will for the greater part of the year be found to blow directly through them, and generally outwards: this wind is at times very violent. The shores of the strait are bold, and anchorage is to be found in but few places. We could not obtain bottom in some places with sixty fathoms of line, even within a boat's length of the shore.

"The south shore is composed of perpendicular sandy cliffs, that run back into high and rugged peaks, and is covered with a forest of various species of pines, that rises nearly to the highest summits of the mountains, which are covered with snow; among them Mount Olympus was conspicuous, rising to an altitude of 8138 feet."

The north shore is rocky, and composed, as far as Captain Wilkes examined it, of conglomerate, and in some few places of a reddish granite.

On the following morning the ships were boarded by a large canoe, with Indians who spoke a few words of English. They seemed to have scarcely any idea of decency, and to be little less elevated in their morals than the wretched natives of Terra del Fuego.

Captain Wilkes says, "They were short thick-set, bow-legged, muscular, and seemed capable of enduring great fatigue. The most obvious peculiarity was the shape of their heads, which appears to have been compressed, both before and behind, so as to give them the form of a wedge. Their cheek-bones were high, and their eyes, which were fine, were set wide apart; their colour was a light copper. The oblique eye of the Chinese was not uncommon, and they had long flowing hair: aquiline or Roman noses were prevalent. Their countenances wore an expression of wildness, and they had, in the opinion of some of us, a melancholy cast of features."

The ships then proceeded onwards, and late in the afternoon reached and weathered a low sand-point, called by Vancouver, New Dungeness, and stood over for his Protection Island. They passed within less than a quarter of a mile of the point, in three and a half fathoms' depth of water.

After passing that island, an extensive bay opened : on the shores were seen the long poles mentioned by Vancouver. The use of these he was unable to discover, but the Indians informed Captain Wilkes, "that they were for the purpose of suspending nets for taking the wild-fowl that frequent the shores in great numbers. On these poles the nets are set up at night, at which time the geese search these grounds for food ; fires are then lighted, which alarm the birds, and cause them to fly against the nets, by which they are thrown upon the ground, where, before they have time to recover themselves, they are caught and killed."

Captain Wilkes observes, that "the description of Vancouver is so exactly applicable to the present state of this post, that it was difficult to believe that almost half a century had elapsed since it was written. The beautiful woods and lawns of Protection Island in particular, exist unchanged. The lawns still produce the same beautiful flowers and shrubs, and although closely surrounded by dense woods, do not seem to have been encroached upon by their luxuriant growth, although there is no apparent reason why it should not long ere this have overrun them.

"Our anchorage in Port Discovery was close to the shore, in twenty-seven fathoms water. It is a well-protected harbour, and very convenient of access, but the high precipitous banks would almost preclude its being made the seat of a settlement.

"The name of Port Discovery was given by Vancouver. It is eight miles long, two miles in average width, and its points, which terminate in low sandy projections, interlock each other. The shores are supplied with large quantities of shell-fish. Protection Island covers it completely to the north, and would render it easily defensive against the most formidable attack. The only objection to it as a harbour is the great depth of the water, which in the middle is nowhere less than forty or fifty fathoms, and is often as much as sixteen fathoms close to the shore."

The Indians, a most filthy race, occupied a few miserable lodges on one of the points.

During his stay at Port Discovery, they supplied Captain Wilkes plentifully with venison, ducks, geese, salmon, a large species of cod, flounders, herrings, and crabs. They also brought shell-fish, among which were the common clam muscles, and small oysters.

He remained at Port Discovery until the 6th of May, during which time he employed his people in surveying the harbour and exploring the country. The botanists of the expedition discovered an interesting field opened to them amidst

the great variety and beauty of the *Flora*. *Dodecatheon*, *Viola*, *Trifolium*, *Leptosiphon*, *Scilla* (the cammass of the natives), *Colliersia*, *Claytonia*, *Stellaria*, &c., vied with each other in beauty, and were in such profusion, as to excite both admiration and astonishment.

According to Mr. Brackenridge, the soil on which the plants grow consists of a light brown loam, but the general character of the soil around Port Discovery was a thin, black, vegetable mould, with a substratum of sand and gravel.

The trees grow so closely, that in some places the woods are almost impenetrable. The timber consists principally of pine, fir, and spruce. Of the latter there are two species, one of which resembles the hemlock-spruce of the United States: it is of very tall growth, and puts out but few, and those small, lateral branches. Some maple-trees grow in the open grounds and on the banks, but they are too small to be of any service for building purposes. Several trees which they had cut down to make spars for the *Vincennes*, proved, although healthy in appearance before they were felled, to be more or less defective; the wood was sound and compact on one side only, while on the other it was opened, grained, and fibrous.

On the 5th of May, the officers were all engaged in surveying, and Captain Wilkes occupied one of the points as a station, where he made astronomical and magnetic observations. He found the latitude 48 deg. 02 min. 58 sec. north - the longitude 123 deg. 02 min. 07.5 sec. west; the variation was 20 deg. 40 min. east. The temperature in the shade was 55 degrees.

On the 6th of May, finding that the messenger whom he had despatched to Fort Nisqually did not return, Captain Wilkes determined to proceed towards that place without delay. He weighed anchor, and the ships got under way at half-past ten, and beat out of Port Discovery. He stood towards Point Wilson (of Vancouver), which forms one side of the entrance into Admiralty Inlet. Turning the point, he entered the inlet and anchored in Port Townsend, on its northern side, in ten fathoms water. Port Townsend is a fine sheet of water, three miles and a quarter in length, by one mile and three-quarters in width. Opposite to the anchorage there is an extensive table land, without trees. He considers that it would afford a good site for a town.

The bay is free from dangers, and is well protected in the directions from whence high winds blow. The anchorage is of convenient depth, and there is abundance of fresh water to be had. The soil is a light sandy loam, and appeared to be fertile. It was covered with wild flowers, and strawberry plants in blossom.

From this point Mount Baker is distinctly seen to the north-east, and forms a remarkable object, especially when its conical peak is embellished by the rays of sun-setting.

On the 7th he completed the survey. At noon both vessels moved up about eight miles, and anchored in a place which he called Port Lawrence. This harbour is at the entrance of Hood's Canal, from whence they had a view of it, and of Admiralty Inlet. The weather was unpleasant, and the only duty that could be performed was that of dredging for shells. Several new specimens were thus taken. The natives brought them plenty of fish, venison, geese, and ducks.

"On the morning we made the survey of Port Lawrence, beginning at daylight. This being completed, I took advantage of the tide making to get under way with a fresh breeze, and passed with both vessels as far as a small cove on the west side of the inlet, opposite to the south end of Whidby's Island. Here we anchored before sunset.

"We were under way soon after daylight, taking advantage of the tide, and continued beating as long as it lasted. This was about two hours, by which time we reached another small cove. This was named Appletree Cove, from the numbers of that tree which were in blossom along its shores. This cove answers well for all the purposes of a temporary anchorage. Before the tide began to make in our favour, we had finished the survey of the cove. We again sailed, and at dark anchored under the west shore, near a fine bay, which the next day was surveyed and named Port Madison. This is an excellent harbour, affording every possible convenience for shipping."

The scenery of this portion of the Admiralty Inlet is described by Captain Wilkes as resembling parts of the Hudson River, particularly those about and above Poughkeepsie. The distant highlands, though much more lofty, reminded him of the Kaatskills. He saw but few Indian lodges on his way up, and the shores appeared as if never having been intruded upon by man.

The wind proved fair; the ships sailed up the inlet by the passage to the right of Vashon's Island, and anchored in sixteen fathoms water, below the narrows leading into Puget Sound, within a few yards of the shore, and under a high perpendicular bank.

The shores of all these inlets and bays are so bold, that in many places a ship's side would strike the banks before the keel would touch the bottom.

On the 11th of May he surveyed this part of the sound, and on the turn of tide sailed inwards, but had great difficulty in getting beyond the reach of the eddy winds occasioned by the high banks. On each side of this pass, high projecting bluffs of sandstone, ornamented along their base with shrubbery, rose almost perpendicularly from the water. The tide runs through the narrows with great velocity, carrying forward a ship amidst eddies and whirlpools.

Captain Wilkes observes, "The Porpoise succeeded in entering the narrows first, and in a few minutes was lost sight of. The Vincennes entered, and seemed

at first to be hurrying to destruction, with her sails quite aback. We were carried onward wholly by the force of the tide, and had backed and filled only once before we found ourselves in as spacious a sound as the one we had just left. This narrow pass seems as if intended by its natural facilities to afford every means for its perfect defence. Twelve miles more brought us to the anchorage off Nisqually, where both vessels dropped their anchors about eight o'clock. Here we found an English steamer (belonging to the Hudson's Bay Company) undergoing repairs. Soon after we anchored I had the pleasure of a visit from Mr. Anderson, who is in charge of the fort, and Captain M'Neil. They gave me a warm welcome, and offered every assistance in their power to aid me in our operations."

In describing these inlets he says, "Nothing can exceed the beauty of these waters and their safety. Not a shoal exists within the Straits of Juan de Fuca, Admiralty Inlet, Puget Sound, or Hood's Canal, that can in any way interrupt their navigation by a seventy-four gun ship. I venture nothing in saying there is no country in the world that possesses waters to equal these."

The anchorage off Nisqually is contracted by the rapid shelving of the bank, which abruptly falls into very deep water. The shore rises at the same places to the height of about two hundred feet, above and beyond which a table-land extends, covered with pine, oak, and ash trees, in clumps, or detached. This plateau appears like a vast park. The ascent is overcome by a well-constructed gently winding road, from the summit of which there is a splendid view of the sound, its numerous islands, Mount Olympus covered with snow in the background, and Fort Nisqually, with its out-buildings and enclosure about half a mile from the slope of the table-land.

The Porpoise, with two of the Vincennes' boats, under Lieutenant-commandant Ringgold, were directed to the survey of Admiralty Inlet. The launch, the first cutter, and two boats of the Vincennes were placed under the command of Lieutenant Case to survey Hood's Canal. A land party was formed to explore the interior, and placed under the command of Lieutenant Johnson, of the Porpoise, accompanied by Dr. Pickering, Mr. T. W. Waldron of the Porpoise, Mr. Brackenridge, Sergeant Stearns, and two men. Eighty days were allowed them for the excursions through the interior to cross the cascade range of mountains to the river Columbia, and then to proceed to Fort Colville, thence south to Lapevai, the mission station on the Kooskooskee River, thence to Walla-walla, and finally to return by the way of the Yakima River, and repass the mountains to Nisqually.

Another land party, consisting of Captain Wilkes, Messrs. Drayton and Waldron of the Vincennes, and two servants. The intended route proposed by the latter was across the country to the Columbia River, to visit Astoria, then

Fort Vancouver and the Willamette settlement, and to proceed up the river as far as Walla-walla. Captain Wilkes expected to find the ship Peacock safe at Astoria, and to despatch parties from that vessel into the interior, and with her boats to commence a survey of the Columbia River.

NISQUALLY—HUDSON BAY COMPANY'S TRADING AND AGRICULTURAL OPERATIONS.

THE fort at Nisqually is constructed of pickets, enclosing a long square space each side, about 200 feet, with four corner bastions. Within this enclosure are the agents' stores, and about half-a-dozen houses, built of logs, and roofed with bark. This fort was considered sufficiently large when first established, but since Nisqually has become an agricultural as well as a trading post, it is found insufficient for the purpose, and its situation is ill chosen, on account of the difficulty of obtaining good water, which is nearly a mile distant. Captain Wilkes was informed that there was little necessity for protection against the Indians, who had become few in number and peaceably disposed.

Mr. Anderson and Captain M'Neil resided in the fort with their families: both were married to half-breeds, and had several fine children. In their garden there were growing strawberries, gooseberries, salads, &c. They had fine fields of grain, large barns and sheepfolds, agricultural implements, and workmen with cattle were engaged in the various employments of husbandry.

A Dr. Richmond who had been settled there for some months, "occupied a nice log-house, built on the borders of one of the beautiful prairies."

There is a mission-house at some distance, on the borders of an extensive and beautiful prairie, which Captain Wilkes says, "would be admirably adapted for a large settlement, if the soil was in any respect equal to its appearance. This is composed of a light brown earth, intermixed with a large proportion of gravel and stones: it requires an abundance of rain to bring any crop to perfection, and this rarely falls during the summer months. At the season when we arrived, nothing could be more beautiful, or to appearance more luxuriant than the plains, which were covered with flowers of every colour and kind: among these were to be seen ranunculus, scilla, lupines, collinsia, and balsamoriza (a small sunflower peculiar to Oregon); but the soil is quite thin, and barely sufficient for these in many places. The best land occurs where the prairies are intersected or broken by belts of woods, that have a dense undergrowth, consisting of hazel, spiraea, cornus, and prunus. On the borders of these belts are scattered oaks and some

ash, arbutus, birch, and poplars, and in some places the yew is to be found; but the predominant character of the vegetation is of the tribe of coniferae, which seem to occupy large ranges of the country, and among which the cedar is found to attain a large size."

Belonging to the company's establishment at Nisqually, there are a large dairy, several hundred head of cattle, and among them seventy milch cows, which yield a large supply of butter and cheese, large crops of wheat, peas, and oats, potatoes, &c., are raised. These operations are managed by a farmer and dairyman, who were sent for these purposes from England. A few Indians are engaged in attending the flocks, and the company's servants are almost exclusively employed as labourers.

PUGET SOUND COMPANY.

Captain Wilkes remarks, that he has described these agricultural establishments as connected with the Hudson Bay Company. They are *de facto* so; but as the charter precludes farming operations, another company has been organised, under the title of the "Puget Sound Company," the shares of which are held by the officers, agents, and servants of the Hudson Bay Company, and its officers are exclusively chosen from among them. Dr. McLaughlin, for instance, chief officer and governor of Fort Vancouver, on the part of the Hudson's Bay Company, is also a director of the Puget Sound Company, and has the entire management of its concerns. His salary is five hundred pounds.

The capital of the latter Company is five hundred thousand pounds, divided into shares of one hundred pounds each. Two hundred thousand pounds was found sufficient capital, and no more was paid in.

"The operations of this company," says Captain Wilkes, "are, in consequence, large: they began by making large importations of stock from California and some of the best breed of cattle from England. They have also entered into farming on an extensive scale, using as labourers the servants of the Hudson Bay Company, who are bound by their contracts to do all manner of service that may be required of them, even to the bearing of arms.

"This company supplies all the forts and stations of the Hudson's Bay Company on the west of the American continent, and also furnishes the Russian ports with wheat, butter, and cheese. The Russians take annually about fifteen thousand bushels of wheat. The directors of the company expect to succeed in breeding a sufficient stock of cattle and sheep, to enable them to export hides, horn, tallow, and wool to England in the return ships, which hitherto have left the coast comparatively empty, as the furs occupy only a small portion of the ship. Captain Wilkes is of opinion "that they will be enabled to drive a profitable trade, particularly when it is considered how little care the cattle require

in this territory, in consequence of the grass and natural hay which the soil affords at all seasons. It is the prospect of the advantageous results to be derived from these operations, that has induced the Hudson Bay Company to change their trading establishments into large agricultural ones. For some years previous to our arrival, they had not been able to meet their own wants, and at the same time fulfil their contracts with the Russians. They were, therefore, obliged to purchase from the settlers in the territory, as well as send to California, to procure the requisite quantity of agricultural products. A demand was consequently created for wheat, and all that could be raised in the Willamette settlements was bought for six shillings currency (seventy-five cents) a bushel, and paid for in drafts on their stores, in goods, at fifty per cent advance on the first London cost. This gave an encouragement to the small farmers, that was fated to meet with grievous disappointment the next season; for the company was able not only to meet their engagements, and their own wants, but had, besides, a surplus. The prices consequently would be merely nominal, unless raised by the influx of new settlers. Whether the latter cause had any effect in creating a market, I know not; but I understand, that in 1842, some of the settlers fed their horses upon their finest wheat."

The scenery around Nisqually embraces a splendid panorama, with Mount Rainier, rising nearly east of it; there are two or three other magnificent snowy peaks. They are all nearly regular cones, with summits indicating extinct volcanoes. One of these, Mount Hood, Captain Wilkes intended to ascend but was prevented in consequence of the loss of the Peacock.

The steam-vessel employed at Nisqually by the Hudson Bay Company, is stated by him to be ill-adapted for the purpose from her incapacity to carry necessary fuel for her entire voyage, which occasions great delay by stopping at intermediate places, where a supply of wood is only obtained by cutting it by the crew. But this vessel was, however, equipped with a sufficient armament, barricades, and boarding-nettings, deemed essential on the northern coast, where the savage tribes are hostile and numerous.

After the several parties were in readiness to start on their respective expeditions, Captain Wilkes proceeded with his own party for the Columbia River. He says, "It was a strange cavalcade, for most of us were but sorry horsemen, and we had every variety of accoutrements, from the saddle and bridle to the bare back and halter. We were eight in number: Messrs. Drayton, Waldron, and myself, two servants, two Indians, and a Canadian guide, with four pack-horses. The horses and the guide were kindly furnished us by the gentlemen at the fort, to carry us as far as Cowlitz Farms, about sixty miles distant, where we intended taking canoes. Our Indians, though partially clothed in worn-out European clothing, still showed their free and easy carriage on horseback: the few ribands and cocks' feathers that were stuck in their caps gave them a flaunt-

ing kind of air; and they manifested a species of self-esteem that was not unpleasing, and betokened an independence and want of care, in good keeping with their mode of life. These savages should never be seen but on horseback, in which position they are really men, and inspire a certain degree of respect. When dismounted, all these qualities vanish, and the Indian becomes the lazy, lounging creature, insensible to any excitement but his low gambling propensities. They have a peculiar knack in managing their horses, and this, too, without any apparent means of controlling them, for their only bridle is a single cord fastened to the lower jaw; with this they contrive to govern the most refractory animals, without the aid of whip or spur, and will urge to speed an animal that has become all but lifeless under our guidance. They practise great cruelty to their horses, and pay no regard whatever to the state of their backs."

They travelled nearly south over grassy lawns, interspersed with groves of oak and ash-trees, until they reached the river Nisqually, the channel of which running between precipitous banks, is about 300 feet below the plain. Its ravine, about half a mile wide, is filled with large timber trees, occasionally uprooted by the torrents occasioned by the melting of the snows in the mountains. The usual bed of the stream is about 100 yards wide, with a rapid current: its course in this place was north-north-west. Its average depth at the ford where the parties crossed was about three feet. They ascended the opposite high banks, and reached the table-land on the plain; the route over which unfolded the most beautiful park scenery, with the prairie now and then opening to view, in which magnificent pines grew detached. The prairie was covered with a profusion of flowers.

After crossing *Shute's* river, the features of which are similar to those of the Nisqually, they encamped and lighted fires before dark, having travelled about twenty-two miles. On examining the alforcas, or saddle-bags, they found the small stores had been damaged in fording the river. In the lower country, snakes were observed, but they are seldom venomous; the rattle-snake is rarely seen, in consequence of the dampness of the climate. In the middle section, where it is dry, they are met in great numbers. Elk and deer had been attracted by the fire during the night. The grass around the tents was of the most nutritious kind for the horses to feed on.

In the morning, on resuming the journey, the park-like scenery increased in beauty; "And," Captain Wilkes observes, "it was almost impossible to realise that we were in a savage and wild country, and that nature, not art, had perfected the landscape. Beautiful lakes, with greensward growing to the water's edge, with deer feeding fearlessly on their margin, and every tint of flower, many of which were not new to our gardens at home, strewn in profusion around; we could hardly, in galloping along, but expect to see some beautiful mansion, as a fit accompaniment to such scenery!"

The Bute prairies over which they passed, are extensive, and covered with tumuli, or small conical mounds, about thirty feet in diameter, six to seven feet high above the level, and many thousands in number. "We opened three of the mounds, but nothing was found in them but a *pavement* of round stones."

After a ride of twelve miles they reached Chickees River, which flows into Gray's Harbour, about forty miles north of the Columbia. Its stream was about 200 yards wide. On its banks there were a few lodges containing about twenty Indians of the miserable Nisqually tribe, who had come here to make preparations for the salmon-fishery, then about to commence (20th of May). Hanging around their lodges were hundreds of lamprey eels, from a foot to eighteen inches long, and an inch thick. These fish are caught in great quantities and dried for food; they are also used for candles or torches: for being full of oil they burn brightly.

On proceeding, the soil changed from gravel to a rich unctuous clay. After crossing the branch of the Chickees, they passed over some high hills, the track being exceedingly difficult, and so miry that the pack-horses frequently stuck fast. The woods and underbrush grew also so thickly, that it was with difficulty that a horse and rider could pass; fallen trees were to be jumped or hobbled over. They finally ascended to the crest of the heights, "where," Captain Wilkes observes, "we commanded one of the most charming views I saw in Oregon, extending to a distance over the luxuriant country, while at our feet lay one of the beautiful prairies, bedecked in every hue of the rainbow, with the Chickees winding through it." They descended and passed over the prairie to some Indian lodges, whose inhabitants were squalid and dirty. Their route then lay through alternate woods and prairies, the former composed of large pines and cedars. Several considerable streams of water were crossed. The banks were not so high as those before passed. "The latter," he says, "covered with strawberries, so tempting as to induce us to dismount and feast upon them, and many plants that excited a feeling of interest, and reminded us of home: among the number was the red honeysuckle (*caprifolium*), which was in full bloom. After passing extensive *Cammass* plains, the party reached the company's farm on the Cowlitz, which occupies an extensive prairie on the banks of that river.

This establishment comprises 600 or 700 acres enclosed, under skilful cultivation, with several large granaries, a large farm-house, and numerous out-buildings, to accommodate the dairy, workmen, cattle, &c. The fields were covered with a luxuriant crop of wheat. At the further end of the prairie, there was a settlement with its orchards, &c., and amidst a grove of trees, stood the chapel and house of the Catholic mission. "The place," says Captain Wilkes, "resembled that of a settlement of several years' standing in our western states, with the exception, however, of the remains of the conquered forest (charred stumps) for here the ground is ready for the plough, and nature seems as it were to invite the husbandman to his labours."

The party was hospitably entertained by Mr. Forrest, the superintendent, how readily made arrangements for canoes to carry the expedition down the Cowlitz and Columbia rivers to Astoria, or Fort George.

At this farm the company had then a large dairy, and were about erecting a saw and grist mill. The superintendent's dwelling was large and built of well-hewn logs, with the workmen's houses, &c., it formed a village.

Captain Wilkes observes, " Large numbers of cattle were being brought in for the night, which is a very necessary precaution in Oregon, in consequence of the numerous wolves that are prowling about. In some places it becomes necessary for the keeper to protect his beasts even in the daytime. The cattle at times suffer from drought, in which case the Indians are sent across the river to cut fodder for them, in order to avoid sending the cattle to the *cammass* plains, where they would be subject to the loss of all their young. The farm at the Cowlitz has no sort of defence about it, proving, as far as the Indians are concerned, that there is no danger of being molested ; indeed, their numbers here are too small to attempt any aggression, and their dependence on the company for both food and clothing too complete to allow them to quarrel except among themselves. Of such disputes the agent of the company takes no sort of notice. The mortality that has attacked them of late has made sad ravages, for only a few years since they numbered upwards of a hundred, while they are now said to be less than thirty. The quantity of land contained within the company's farms at the Cowlitz was then about six hundred acres, most of which was under wheat."*

Around the superintendent's house there was a kitchen garden, in which all the usual horticultural plants, similar to those of the United States, were growing luxuriantly.

The superintendent informed Captain Wilkes that the weather was never actually cold, nor the winter long. Snows seldom lasted more than a day or two; fires were, however, found comfortable during most months of the year. Cattle were sometimes housed ; but little or no provision was made for their sustenance, as the grass is sufficient during the whole year. The Cowlitz Farm is in latitude 46 deg. 30 min. north, longitude 123 deg. west.

The guide procured by the superintendent for Captain Wilkes had been the coxswain of General Cass's canoe, when that belligerent senator performed a trip to the lakes in the North-west Territory. This guide had been for several years in Oregon. He left the company's service, married an Indian wife, and was living on a farm of about fifty acres, at the Cowlitz, independent and contented. Captain Wilkes says he "had seldom seen so pretty a woman as his wife ; before her marriage she was the *belle* of the country, and celebrated for her feats of horsemanship."

The Cowlitz River takes its rise in the Cascade Range, near Mount Rainier.

* The crop of 1841 produced about 7000 bushels.

Its banks are tolerably high until it approaches the Columbia. It is only navigable even for boats at high water, in the spring and fall, at which time the supplies from Vancouver are sent up, and the wheat and other produce of the farm, in large flat barges. The soil along the river appeared to be of a good quality, a clayey loam with vegetable mould, overlaying trap rock and sandstone. The trees were chiefly poplars, white maple, ash, fir, pine, and cedar, with some laurel, where the prairies are flooded in the month of May.

It was reported that coal of good quality existed near the banks of the Cowlitz, but Captain Wilkes examined all the places that indicated its formation, and only found lignite. He observes,

"The route by the way of the Cowlitz will, in all probability, be that which will hereafter be pursued to the northern waters and sounds. Although there are many difficulties in crossing the rivers, &c., yet it is believed to be the most feasible course. On our way, we met with many canoes passing up loaded with salmon and trout, which had been taken at the Willamette Falls, and which they were then carrying to trade with the Indians for the *camass root*.

"The Columbia, where the Cowlitz joins it, is a broad flowing stream, and was at this time much swollen. We had, after entering it, about forty miles yet to make, and it was past noon, but we glided briskly on with the current, although it was by no means so rapid as I had expected to have found it. Near the mouth of the Cowlitz is a high conical hill which has received the name of Mount Coffin, from its having been a burial-place of the Indians; and the remains of many of their coffins were still to be seen scattered over it. On the opposite side of the river is a high barrier of trap-rocks, covered with majestic pines.

"About ten miles lower down, we passed Oak Point, where the river turns nearly at right angles, taking its course along a barrier of trap-rocks, which it here meets on its west side, and which rises 800 feet perpendicularly above its surface. On the other side of the river is one of the remarkable prairies of the country covered with tall waving grass and studded with many oaks, from which the point takes its name. What adds additional interest and beauty to the scene is Mount St. Helen's, which may be seen from the sea when eighty miles distant; its height I made 9550 feet.

"In this part of the river, which I named St. Helen's reach, we met the brig Wave that had brought our stores from *Oahu*. By sunset we had reached Termination Island, and had yet twenty miles to make in a very dark night. We had already passed the only place where we could have encamped, and the natives showed extreme reluctance to go on. They soon desired to return, saying, that the night was very dark, and that the bay would be dangerous. This request was overruled, however, and we continued our course, though under apprehension of disaster. The Indians said that many canoes had been lost, and after

I became acquainted with this part of the river, I no longer wondered at their objections to pass over it at night; for if there is any wind, it becomes exceedingly rough and dangerous for their canoes.

"We found the water quite smooth, and glided on hour after hour without any appearance of a landing. I was at a loss to account for the length of our passage until I found the tide had been against us. We at last reached what the guide called Tongue Point, and afterwards kept skirting the shore for so long a time that I began to have misgivings that we should pass Astoria, and began firing muskets, the usual signal of an arrival. They were immediately answered by others from behind us, and the loud clamour of about forty yelping dogs. These sounds, although discordant, gave us the delightful assurance that we had reached our destination, and might now make our escape from the confined and irksome position we had been in a whole day. Mr. Birnie, the agent to the Hudson Bay Company, met us at the landing, with lanterns and every assistance, and gave us a truly Scotch welcome. We soon found ourselves in his quarters, where, in a short time, a fire was burning brightly, and his hospitable board spread with good cheer, although it was past midnight. After partaking of the supper, blankets were furnished us, and we were made exceedingly comfortable for the night. In the morning, we had a view of the somewhat famous Astoria, which is any thing but what I should wish to describe. Half-a-dozen log-houses, with as many sheds and a pig-sty or two, are all that they can boast of, and even these appear to be going rapidly to decay. The company pay little regard to it, and the idea of holding or improving it as a post has long since been given up. The head-quarters of their operations have been removed to *Vancouver*, eighty miles further up the river, since which Astoria has merely been held for the convenience of their vessels. It boasts of but one field, and that was in potatoes, which I can, however, vouch for as being very fine. In former times it had its gardens, forts, and *banqueting-halls*; and, from all accounts, when it was the head-quarters of the North-west Company, during their rivalship with the Hudson Bay Company, there was as jovial a set residing here as ever were met together. I have had the pleasure of meeting with several of the survivors, who have recounted their banqueting, &c."

ASTORIA.—"In point of situation, few places will vie with Astoria. It is situated on the south side of the Columbia River, eleven miles from Cape Disappointment, as the crow flies. From Astoria there is a fine view of the high promontory of Cape Disappointment, and the ocean bounding it on the west; the Chinook Hills and Point Ellice, with its rugged peak, on the north; Tongue Point and Katalamet Range on the east; and a high background, bristling with lofty pines to the south. The ground rises from the river gradually to the top of a ridge 500 feet in elevation. This was originally covered with a thick forest of pines; that part reclaimed by the first occupants is again growing up in

brushwood. From all parts of the ground the broad surface of the river is in view. The stillness is remarkable, and makes it evident that one is yet far more removed from civilised life; the distant, though distinct, roar of the ocean is the only sound that is heard, this, however, is almost incessant; for the stream though rushing onwards in silence to meet the ocean, keeps up an eternal war with it on the bar, producing at times scenes of great grandeur, but which, as we had already experienced, renders the bar wholly impassable for days together.

"The magnificent pine, so often mentioned by travellers, lies prostrate near the tomb of the hospitable chief Concomely, now in ruins. The chief's skull, it is believed, is in Glasgow, having been long since removed by Dr. Gardner.

"There were many things to remind us of home, among them was a luxuriant sward of white clover, now in full blossom, and numerous other plants that had found their way here; the trees were also familiar, and truly American. I felt that the land belonged to my country, that we were not strangers on the soil; and could not but take great interest in relation to its destiny, in the prospect of its one day becoming the abode of our friends and relatives."

The Columbia, opposite to Astoria, is about four miles wide, but in the middle of the river is an extensive sand-flat, with only a few feet water on it, and at low tides it is bare; the channel is very narrow on each side, and difficult to navigate. At Astoria there is only width for about ten or twelve vessels to ride at anchor. It is, therefore, unfit for an extensive seaport. A point of land extends about half a mile below the fort to where Young's River joins the Columbia, and forms the bay, on the banks of which Lewis and Clarke wintered.

Plumondon, the guide, who was also an expert trapper, informed Captain Wilkes, "That the country lying north of the Columbia, between the Cowlitz and Cape Disappointment, is generally rough and rugged, with numerous streams of water, and in many places a rich soil; it is extremely well timbered, and is capable, when cleared, of growing grain and other agricultural produce."

Captain Wilkes, on the 24th, accompanied the superintendent on a visit to the missionaries at Clatsop. They crossed Young's Bay, and, after walking a mile, came to the mission. The missionary and his wife gave them a kind welcome at their new wooden dwelling, which Captain Wilkes understood him to say had been built by the missionary's own hands. It is situated on light dry soil in front of a spruce and fir grove, which is thought to be the most healthy. There were also two American settlers, who were building houses here, both of them good mechanics. The place is not susceptible of much improvement, but was understood to have been chosen for its salubrity. Another missionary resided four miles distant, upon a tract of land, where he was chiefly occupied in raising a large crop and superintending cattle; there appeared to Captain Wilkes "to be little opportunity for exercising their ministerial calling, though he understood

afterwards, that at particular seasons a number of Indians collected to hear them."

After spending some time at the mission, they set off for Point Adams and Clatsop village; and he says, "I think in all my life, I had never met with so many snakes as I saw during this short walk; they were on the beach, where they were apparently feeding at low water. We looked from the sand-hills on Point Adams for vessels, but none were in sight; and then we walked on to the village. It consisted of few rough lodges, constructed of boards or rather hewn planks of large size; the interior resembled a miserably constructed ship's cabin, with *bunks*, &c.; the only light was admitted from above, near the ridge and gable end. Pieces of salmon and venison were hanging up in the smoke of their fire. Numbers of the Indians are always to be seen lounging about, and others gambling. On the *bunk*-planks were painted various uncouth figures of men, and in one was seen hanging the head of an elk, which it was understood they make use of occasionally as a decoy in the chase, for the purpose of taking their game more easily. Around the whole is a palisade, made of thick planks and joists, and fifteen feet in length, set with one end in the ground to protect them from attack."

The Indians of this region make war with each other on the most trivial occasions, chiefly to gratify individual revenge. The Hudson Bay Company's officers exert great influence in order to preserve peace. Inasmuch as it is safe for a white man to pass in any direction through those parts of the country in which their posts are established. In case of accident to a white settler, a war-party is at once organised by the company, and the offender hunted up. In 1840, an Indian was executed at Astoria for the murder of a white man, whom he came upon while asleep, killed, and stole his property.

On the Clatsop beach, Captain Wilkes saw a great number of dead fish, and was informed that they were thrown up in great multitudes during the autumn; and supposed to be killed by a kind of worm generated in their stomachs.

On the 28th, the company's barks, Cowlitz and Columbia, were discovered; the Columbia bound for *Oahu*, the Cowlitz for the Russian port of Sitka.

Captain Wilkes, on his Indians recovering from their fatigue, left Mr. Waldron at Astoria to await the arrival of the ship Peacock, and embarked on the Columbia to ascend to Fort Vancouver. The wind and waves were too boisterous for the canoe to venture across the open bay.

Tongue Point, a high bluff of trap-rock, covered with trees of large dimensions. "The top," says Captain Wilkes, "has been cleared and taken possession of by the superintendent of Astoria, who has erected a log-hut, and planted a patch of potatoes. The hut was inhabited for a year by a Sandwich Islander and his wife. It is rather a rough spot for cultivation, but the end of occupancy

was answered by it. There is a small portage on Tongue Point which canoes often use in bad weather, to avoid accidents that might occur in the rough seas that make in the channel that passes round it.

"We encamped a few miles above Oak Point, on the Prairie, in a grove of trees. The next morning was beautiful, and the birds were singing blithely around us. Our Indians were as merry as the birds. There was an entire absence of game birds, though a great number of singing ones were seen. We passed during the day Coffin Rock, which is about seven miles above the Mount Coffin before spoken of. It is of small dimensions, and has been the burial-place of chiefs, who are usually interred in canoes, which are provided with all the necessary appendages for their journey to the land of spirits and their hunting-grounds. The mode of disposing of their dead seems to have been different on the south side of the Columbia. On the Cowlitz we observed many canoes near the bank of the river, supported between four trees; these contain the remains of their dead, are painted in a variety of figures, and have gifts from their friends hung around them. I was told that this is not only done at the time of their burial, but frequently for several months after."

The scenery before ascending to the lower mouth of the Willamette was diversified with high and low land. In the woods were frequently sent three lofty snowy peaks with many fine views. The country became more open, and appeared much better adapted to agriculture than lower down the Columbia.

HUDSON BAY COMPANY'S POSTS IN OREGON.

At Warrior Point, Captain Wilkes entered the *Callepuya*, for the purpose of avoiding the current of the strong Columbia. This branch forms a canal during the floods from a chain of lakes which extend to within a mile of Vancouver.

On their approach to the latter, they passed one of the dairies and some rich meadow-land, on which were grazing herds of cattle, and flocks of sheep of the best English and Spanish breeds.

FORT VANCOUVER.—"On landing within a mile of Vancouver, we walked to the fort by a road through a wood of large pines, and an undergrowth of various flowering shrubs. The old stumps in the road were overgrown with the red honeysuckle in full blossom. Lupins and other flowers grow over the roadway."

They entered at the back part of the village, which then consisted of "about fifty comfortable log-houses, placed in regular order on each side of the road. They are inhabited by the company's servants, and were swarming with chil-

dren, whites, half-breeds, and *pure* Indians. The fort stands at some distance beyond the village, and to the eye appears like an upright wall of pickets, twenty-five feet high; this encloses the houses, shops, and magazines of the company. The enclosure contains about four acres, which appear to be under full cultivation. Beyond the fort large granaries were to be seen. At one end is Dr. M'Laughlin's house, built after the model of the French Canadian, and one story weather-boarded and painted white. It has a piazza and some flower-beds with grape and other vines in front; between the steps are two old cannons on sea-carriages, with a few shot to speak defiance to the natives, who no doubt look upon them as very formidable weapons of destruction. I mention these as they are the only warlike instruments to my knowledge that are within the pickets of Vancouver, which differs from all the other forts in having no bastions, galleries, or loop-holes. Near by are the rooms for the clerks and visitors, with the blacksmith's and cooper's shops. In the centre stands the Roman Catholic chapel, and near by the flag-staff; beyond these again are the stores, magazines of powder, ware-rooms, and offices. He (Dr. M'Laughlin) is of Scotch parentage, but by birth a Canadian, enthusiastic in disposition, possessing great energy of character, and extremely well suited for the situation he occupies, which requires great talent and industry. He at once ordered dinner for us, and we soon felt ourselves at home, having comfortable rooms assigned us, and being treated as part of the establishment.

"The situation of Vancouver is favourable for agricultural purposes, and it may be said to be the head of navigation for sea-going vessels. A vessel of fourteen feet draft of water, may reach it in the lowest state of the river. The Columbia at this point makes a considerable angle, and is divided by two islands, which extends upwards of three miles to where the upper branch of the Willamette joins it.

"The shores of these islands are covered with trees, consisting of ash, poplars, pines, and oaks, while the centre is generally prairie, and lower than the banks; they are principally composed of sand. During the rise of the river in May and June, the islands are covered with water, that filters through the banks that are not overflowed. This influx renders them unfit for grain crops, as the coldness of the water invariably destroys every cultivated plant it touches.

"The company's establishment at Vancouver is upon an extensive scale, and is worthy of the vast interest of which it is the centre. The residents mess at several tables; one of the chief factor and his clerks; one of their wives (it being against the regulations of the company for their officers and wives to take their meals together); another for the missionaries; and another for the sick and Catholic missionaries. All is arranged in the best order, and I should think with great economy. Every thing may be had within the fort; they have an

extensive apothecary's shop, a bakery, blacksmith's and cooper's shops, trade-offices for buying, others for selling, others again for keeping accounts and transacting business; shops for retail, where the English manufactured articles may be purchased at as low a price, if not cheaper than in the United States, consisting of cotton and woollen goods, ready-made clothing, ship-chandlery, earthen and iron-ware, and fancy articles; in short, every thing and of every kind and description, including all sorts of groceries, at an advance of eighty per cent on the London prime cost. This is the established price at Vancouver, but at the other posts it is 100 per cent to cover the extra expenses of transportation. All these articles are of good quality, and suitable for the servants, settlers, and visitors. Of the quantity on hand some idea may be formed from the fact that all the posts west of the Rocky Mountains get their annual supplies from the dépôt.

"Vancouver is the head-quarters of the north-west or Columbian department, which also includes *New Caledonia*; all the returns of furs are received here, and hither all accounts are transmitted for settlement. These operations occasion a large mass of business to be transacted at this establishment. Dr. Douglass, a chief factor, and the associate of Dr. M'Laughlin, assists in this department, and takes sole charge in his absence.

"Dr. M'Laughlin showed us our rooms, and told us that the bell was the signal for meals.

"Towards sun-set, tea-time arrived, and we obeyed the summons of the bell, when we were introduced to several of the gentlemen of the establishment; we met in a large hall, with a long table spread with abundance of good fare. Dr. M'Laughlin took the head of the table, with myself on his right, Messrs. Douglass and Drayton on his left, and the others apparently according to their rank. I mention this as every one appears to have a relative rank, privilege, and station assigned him, and military etiquette prevails. The meal lasts no longer than is necessary to satisfy hunger. With the officers, who are clerks, business is the sole object of their life, and one is entirely at a loss here who has nothing to do. The agreeable company of Dr. M'Laughlin and Mr. Douglass made the time at meals pass delightfully. Both of these gentlemen were kind enough to give up a large portion of their time to us, and I felt occasionally that we must be trespassing on their business-hours. After meals, it is the custom to introduce pipes and tobacco. It was said that this practice was getting into disuse, but I should have concluded from what I saw that it was at its height. Canadian French is generally spoken by the servants; even those who come out from England, after a while, adopt it, and it is not a little amusing to hear the words they use, and the manner in which they pronounce them.

"The routine of a day at Vancouver is, perhaps, the same throughout the year. At early dawn the bell is rung for the working parties, who soon after go to work;

the sound of the hammers, clink of the anvils, the rumbling of the carts, with tinkling of bells, render it difficult to sleep after this hour. The bell rings again at eight for breakfast; at nine they resume their work, which continues till one; then an hour is allowed for dinner, after which they work till six, when the labours of the day close. At five o'clock on Saturday afternoon the work is stopped, when the servants receive their weekly rations.

"Vancouver is a large manufacturing, agricultural, and commercial dépôt, and there are few, if any, idlers except the sick. Every body seems to be in a hurry, whilst there appears to be no obvious reason for it.

"Without making any inquiries, I heard frequent complaints made of both the quantity and quality of the food issued by the company to its servants. I could not avoid perceiving that these complaints were well founded, if this allowance were compared with what we deem a sufficient ration in the United States for a labouring man. Many of the servants complained that they had to spend a great part of the money they received to buy food; this is 17*l.* per annum, out of which they have to furnish themselves with clothes. They are engaged for five years, and after their time has expired, the company are obliged to send them back to England or Canada, if they desire it. Generally, however, when their time expires, they find themselves in debt, and are obliged to serve an extra time to pay it; and not unfrequently, at the expiration of their engagement, they have become attached, or married to some Indian woman, or half-breed, and have children, on which account they find themselves unable to leave, and continue attached to the company's service, and in all respects under the same management as before. If they desire to remain and cultivate land, they are assigned a certain portion, but are still dependent on the company for many necessaries of life, clothing, &c.

"This causes them to become a sort of vassal, and compels them to execute the will of the company. In this way, however, order and decorum are preserved, together with steady habits, for few can in any way long withstand this silent influence. The consequence is, that few communities are to be found more orderly than that which is formed of the persons who have retired from the company's service. That this power, exercised by the officers of the company, is much complained of, I am aware, but I am satisfied that as far as the morals of the settlers and servants are concerned, it is used for good purposes. For instance, the use of spirits is almost entirely done away with. Dr. M'Laughlin has acted in a highly praiseworthy manner in this particular. Large quantities of spirituous liquors are now stored in the magazines at Vancouver, which the company have refused to make an article of trade, and none is now used by them in the territory for that purpose. They have found this rule highly beneficial to their business in several respects; more furs are taken in consequence of those who are engaged having fewer inducements to err; the Indians are found to be less quarrelsome, and pursue the chase more constantly; and the settlers as far as I could hear, have been uniformly prosperous.

"In order to show the course of the company upon this subject, I will mention one circumstance. The brig, Thomas H. Perkins, arrived here with a large quantity of rum on board, with other goods. Dr. M'Laughlin, on hearing of this, made overtures immediately for the purchase of the whole cargo, in order to get possession of the whiskey or rum, and succeeded. The doctor mentioned to me, that the liquor was now in store, and would not be sold in the country, and added, that the only object he had in buying the cargo, was to prevent the use of the rum, and to sustain the temperance cause:

"The settlers are also deterred from crimes, as the company have the power of sending them to Canada for trial, which is done with little cost, by means of the annual expresses which carry their accounts and books.

"The interior of the houses in the fort are unpretending. They are simply finished with pine board panels, without any paint; *banks* are built for bedsteads; but the whole, though plain, is as comfortable as could be desired.

"Several of the American and other missionaries make Fort Vancouver for the most part their home, where they are kindly received and entertained, at no expense to themselves, by the governor. The liberality and freedom from sectarian principles of Dr. M'Laughlin may be estimated from his being thus hospitable to missionaries of so many Protestant denominations, although he is a professed Roman Catholic, and has a priest of the same faith officiating daily at the chapel. Religious toleration is allowed in its fullest extent. The dining-hall is given up on Sunday to the use of the ritual of the Anglican church, and Mr. Douglass, or a missionary, reads the service."

All the missionaries, except the Methodist, travelled across the Rocky Mountains: they represented the pass through them as by no means difficult, and that they had entertained no apprehension of the hostile Indians. They had accompanied a party of fur-traders from St. Louis, and gave a deplorable account of the dissipation and morals of the party. They were disappointed in finding self-support in Oregon, and had it not been for the hospitality of Dr. M'Laughlin, who took them in, they would have suffered much. They were then advised to settle on the Faulitz Plains, where Captain Wilkes understood they had, since his departure, taken land, and succeeded in forming good farms.

There are two large entrance-gates to the "fort," for waggons and carts, and one in the rear leading to the granaries and the garden; the latter occupies four or five acres of ground, in which are grown all kinds of kitchen vegetables, and many varieties of fruit, with which the tables are abundantly supplied by the Scotch gardener. This gardener, after his first term of service, returned to England, and after visiting and making himself acquainted with the horticulture of Chiswick, meeting Dr. M'Laughlin accidentally in London begged to be sent back to Fort Vancouver, the garden of which he was ambitious should surpass that of the celebrated one at Chiswick.

Besides the store-houses there is also a large granary, of two stories high.

In addition to the other advantages, there are extensive kitchens and apartments for the half-breed and Indian children, whom the company have taken in order to bring up and educate. Of these latter there were twenty-three boys and fifteen girls. A teacher was employed for the boys, who superintended them not only in school but in the field and garden. During Captain Wilkes's stay an examination took place, and he observes, "Although the pupils did not prove very expert at their reading and writing, yet we had sufficient evidence that they had made some improvement, and were in a fair way to acquire the rudiments. Some allowance was to be made for the boys, who had been constantly in the field, under their teacher, for a few months past. Dr. M'Laughlin estimated the labour of four of these small boys as equal to that of one man. It was an interesting sight to see these poor little cast-away fellows, of all shades of colour, from the pure Indian to that of the white, thus snatched away from the vices and idleness of the savage. They all speak both English and French; they were also instructed in religious exercises, in which I thought they were more proficient than in their other studies. These they are instructed in on Sunday, on which day they attend divine worship twice. They were a ruddy set of boys, and when at work had a busy appearance. They had planted and raised six hundred bushels of potatoes; and, from what Dr. M'Laughlin said to me, fully maintain themselves. The girls are equally well cared for, and are taught by a female, with whom they live and work.

"An opinion has gone abroad, I do not know how, that at this post there is a total disregard of morality and religion, and that vice predominates. As far as my observations went, I feel myself obliged to state that every thing seems to prove the contrary, and to bear testimony that the officers of the company are exerting themselves to check vice and encourage morality and religion in a very marked manner, and that I saw no instance in which vice was tolerated in any degree. I have indeed reason to believe, from the discipline and the example of the superiors, that the whole establishment is a pattern of good order and correct deportment.

"This remark not only extends to this establishment, but as far as our opportunities went (and all but two of their posts were visited), the same good order prevails throughout the country. Wherever the operations of the company extend, they have opened the way to future emigration, provided the means necessary for the success of emigrants, and rendered its peaceful occupation an easy and cheap task."

HUDSON BAY TRADE IN OREGON.—All the goods imported by the company into Oregon are divided into three classes, viz., articles of gratuity; those of trade; and those intended to pay for small services, labour, and provisions. The first consists of knives and tobacco; the second of blankets, guns, cloth,

powder, and shot ; the third of shirts, handkerchiefs, ribands, beads, &c. These articles are bartered at seemingly great profits, and many persons imagine that large gain must be the result from the Indian trade, but this is seldom the case. The Indians and settlers fully understand the value of each article. The company make advances to all their trappers if they wish to be sure of their services ; and from such a reckless set, there is little certainty of getting returns even if the trapper has it in his power. In fact, he will not return with his season's acquisition unless he is constrained to pursue the same course of life for another year, when he requires a new advance. In order to avoid losses by the departure of their men, the parties, some thirty or forty in number, are placed under an officer, who has charge of the whole. These are allowed to take their wives and even their families with them, and places where they are to trap during the season, on some favourable ground, are assigned to them. These parties leave Vancouver in October and return in May or June. They usually *trap* in shares, and the portion they are to receive is defined by an agreement the conditions of which depend very much on their skill. All the profits of the company depend upon economical management, for the quantity of peltry in this section of the country ; and indeed it may be said the fur-trade on this side of the mountains has fallen off fifty per cent within the last few years. It is indeed reported that this business, at present, is hardly worth pursuing.

Captain Wilkes was shown over the granary, which contained wheat, flour, barley, and buckwheat. The wheat averaged sixty-three pounds to the bushel ; barley yields twenty bushels to the acre ; buckwheat, in some seasons, gives a good crop, but it is by no means certain owing to the early frosts ; oats do not thrive well ; peas, beans, and potatoes yield abundantly ; little or no hay is made, the cattle being able to feed all the year round on the natural grass, which is very nutritious and they fatten upon it. The grass grows up rapidly in the beginning of summer, and the subsequent heat and drought actually convert it into hay, in which the juices are preserved. Besides this, they have on the prairies along the river two luxuriant growths of grass ; the first in the spring, and the second soon after the overflowing of the river subsides, which is generally in July and August. The last crop lasts the remainder of the season. Neither do they require shelter, although they are *penned* in at night. The *penns* are moveable, and the use of them is not only for security against the wolves but to manure the ground.

The farm at Vancouver is about *nine miles square*. On this they have two dairies, and milk upwards of one hundred cows. There are also two other dairies situated on *Werpauto* island on the Willamette, where they have one hundred and fifty cows, whose milk, under the direction of dairymen, is made into butter and cheese for the Russian settlements.

The company has likewise a grist and saw-mill, both well constructed, about six miles above Vancouver, on the Columbia River.

Captain Wilkes visited the dairy farm which lies to the west of Vancouver, on the *Callepuya*. This was one of the most beautiful. He rode to it through fine prairies, adorned with large oaks, ash, and pines. Large herds of cattle were feeding and reposing under the trees.

It is found advantageous to change the site of the dairy annually. The ground occupied the previous year is fertilised, and the new site affords the cattle better pasturage. The stock on the Vancouver farm amounted in 1841 to about three thousand head of cattle, two thousand five hundred sheep, and about three hundred brood mares.

Captain Wilkes found the whole establishment well managed by a Canadian and his wife. They churned the milk in barrel-machines, of which they had several. The cattle looked extremely well, and were rapidly increasing in numbers. The cows of the California breed yield but little milk, but when crossed with cattle from the United States and England, they greatly improve as milch cows. He saw some fine bulls that had been imported from England. He says, "The sheep have lambs twice a year" (?) Those of the California breed yield a very inferior kind of wool, which is inclined to be hairy near the hide, and is much matted. This breed has been crossed with the Leicester, and other breeds, which has much improved it. The fleeces of the mixed breed are very heavy, weighing generally eight pounds, and some as much as twelve. Merinos have been tried, but they are not found to thrive.

The Californian horses are not equal to those raised in Oregon; those bred near Walla-walla are in the most repute.

The number of posts occupied by the Hudson Bay Company in this territory is twenty-five; these are located at the best points for trade, and so as to secure the resort of the Indians, without interfering with their usual habits. Places are also occupied in the vicinity of their abodes during the most favourable part of the year, for obtaining the proceeds of their hunting. Captain Wilkes remarks, "This is regulated with much skill, and the portion of the country once under the care of the company is never suffered to become exhausted of furs; for, whenever they discover a decrease, the ground is abandoned for several years, until the animals have time to increase again.

The few posts which the company established in Northern California are of no importance. Some of the posts are situated far north behind the Russian settlements on the north-west coast.

"The trade and operations of the Hudson Bay Company are extensive, and the expense with which they are attended is very great. I am inclined to think that it is hardly possible for any one to form an exact estimate of the amount

of profit they derive from their business on the west side of the mountains. The stock of the company certainly pays a large dividend, and it is asserted, that in addition a very considerable surplus has been accumulated to meet any emergency, yet it may be questioned whether their trade in the Oregon territory yields any profit. The establishments are conducted at much less expense than formerly, owing to the provisions required being now raised in the country.

"The Puget Sound Company, although it has been in operation for several years, had made no dividend up to 1841. The accumulations of their live stock is considered an augmentation of value. In the event, however, of the country becoming the abode of a civilised community, the farms or any other land possessed by this company must become very valuable, as the posts occupy all the points most favourably situated for trade, and the agricultural establishments have been placed in many of the best positions for farming operations. The utmost economy is practised in every part of the establishment of the Hudson Bay Company, and great exertions are made to push their operations over a larger field of action. Mercantile houses, supported by the credit and capital of the company, have even been established at the Sandwich Islands and San Francisco, where articles of every description imported in the vessels of the company may be purchased.

"The value of the furs obtained on this coast does not exceed 40,000*l.* annually; and when the cost of keeping up their posts, and a marine composed of four ships and a steamer is taken into account, and allowances made for losses, interest, and insurance, little surplus can be left for distribution. I am, indeed, persuaded, that the proceeds of their business will not long exceed their expenses, even if they do so at present. The statement of the company's affairs presents no criterion by which to judge of the success of their business on the north-west coast. It was the general impression among the officers that such has been the falling off in the trade, that it does not now much more than pay expenses."

Captain Wilkes, on visiting the site of the old fort Vancouver, says,

"The view from this place is truly beautiful; the noble river can be traced in all its windings, for a long distance through the cultivated prairie, with its groves and clumps of trees: beyond, the eye sweeps over an intermediate forest, melting in a blue haze, from which Mount Hood, capped with its eternal snows, rises in great beauty. The tints of purple which appear in the atmosphere, are so far as I am aware, peculiar to this country. This site was abandoned, in consequence of the difficulty of obtaining water, and its distance from the river, which compelled them to transport every article up a high and rugged road.

"The company have a grist-mill, and the miller is both a millwright and watchmaker. There is also a powerful saw-mill, and boards and deals are sawed beyond those required, and shipped to the Sandwich Islands. The men employed at the mill were Canadians and Sandwich Islanders. Adjoining the saw-mill there is a

large smithy, in which is prepared the iron work required for mill work, and all the axes and hatchets used by the woodcutters and trappers. A trapper's success depends chiefly upon his axe, and if it should be lost or broken, he is compelled to relinquish his pursuit, and to return for another. About fifty axes can be manufactured in a day, and twenty-five are usually made, and like those used by the American labourers, are of excellent temper and quality. They are purchased by the Indians, and are made for them of a certain shape, somewhat like a *tomahawk*.

On one of the sheep-walks belonging to the company on the high prairie, which Captain Wilkes visited, the soil is a light sandy loam, which yields a plentiful crop of columbine, lupin, and cammass flowers. Throughout these upper prairies, in places are seen growing pines of gigantic dimensions and towering height, with their branches drooping to the ground, with clumps of oaks, elders, and maple. These prairies have such an air of being artificially kept in order, that they never cease to create surprise, and it is difficult to believe that the hand of taste and refinement has not been at work upon them. He observes,

"On our way back to Vancouver, we met the droves of horses and cattle that they were driving to the upper prairie on account of the rise of the river, and the consequent flooding of the low grounds. A certain number of brood mares are assigned to each horse; and the latter it is said, is ever mindful of his troop, and prevents them from straying. An old Indian is employed to watch the horses, who keeps them constant company, and is quite familiar with every individual of his charge. We reached the fort just at sunset, after a ride of twenty miles. The air was mild, and a pleasant breeze prevailed from the west. Mount Hood showed itself in all its glory, rising out of the purple haze with which the landscape was shrouded.

"The usual time for the highest rise of the river is in the middle of June.

"The crop of wheat of the last year had been partially destroyed by the floods, causing a loss of a thousand bushels.

"Although the Columbia does not overflow its banks anywhere except in the lower prairie, there are quicksands in these, through which the water, before it reaches the height of the embankment, percolates and rises on the low parts of the prairie. In consequence of the low temperature of the water, it chills and destroys the grain.

"I witnessed the Columbia at its greatest and least heights, and no idea can be formed of it unless seen at both these epochs. The flood is a very grand sight from the banks of the river at Vancouver, as it passes swiftly by, bearing along the gigantic forest trees, whose immense trunks appear as mere chips. They frequently lodge for a time, in which case others are speedily caught by them, which, obstructing the flow of the water, form rapids, until, by a sudden rush, the whole is borne off to the ocean, and in time lodged by the currents on some remote and savage islands,

to supply the natives with canoes. I also witnessed the undermining of large trees on the banks, and occasional strips of soil: thus does the river yearly make inroads on its banks, and changes in its channels.

"From the circumstance of this annual inundation of the river prairies, they will always be unfit for husbandry, yet they are admirably adapted for grazing, except during the periods of high water. There is no precaution that can prevent the inroad of the water. At Vancouver they were at the expense of throwing up a large embankment of earth, but without the desired effect. It has been found that the crop of grain suffers in proportion to the quantity of the stalk immersed: unless the wheat is completely covered, a partial harvest may be expected.

"The waters of the Columbia have no fertilising qualities, which is remarkable when the extent of its course is considered: on the contrary, it is said, to deteriorate and exhaust the soil. It is, when taken up, quite clear, although it has a turbid look as it flows by. Quantities of fine sand are, however, borne along, and being deposited in the eddies, rapidly form banks, which alter the channel in places to a great degree."

During Captain Wilkes's visit at Vancouver, he was applied to by three of a party of eight young Americans, who were desirous of leaving the country, but could not accomplish it in any other way but by building a vessel. They were not dissatisfied with the territory, but they would not settle themselves down in it because there were no young women to marry, except squaws or half breeds. They informed him that they were engaged in building a vessel on the oak islands in the Willamette, where he promised to visit them on his way up the river.

WILLAMETTE VALLEY.

ON the 4th of June, 1841, Captain Wilkes left Fort Vancouver, and proceeded on an expedition up the valley of the Willamette river.

Dr. M'Laughlin kindly procured him a large boat and provisions.

The barge in which Captain Wilkes embarked, was usually employed in carrying grain and other produce, but on this occasion was fitted up with seats and other conveniences as a passage boat. These boats are flat-bottomed, and capable of carrying about 300 bushels of wheat over a small draft of water; when well-manned, they are made to go as swiftly as canoes, and are extremely well adapted to the navigation of the river; they are provided with large tarpaulings to protect their cargo from the weather.

"From Vancouver," says Captain Wilkes, "we floated down with the cur-

rent to the upper mouth of the Willamette, which we entered before night, and passed the encampment of the principal of the Methodist mission in Oregon, which was on its way to Clatsop, at the mouth of the Columbia.

"The mosquitoes and sand flies were so annoying, that we were glad to seek for higher ground to encamp on, for the purpose of escaping them.

"The Willamette river is generally about one-fourth of a mile wide. For the distance of four miles from its entrance into the Columbia, its banks are low, and during the rise of the latter, are overflowed; its waters being backed into the Willamette. There is little current to contend with in this river during mid summer. After passing this low ground, the banks become high and precipitous, and are only in a few places susceptible of cultivation.

"We encamped on the island occupied by the young Americans, close to the place where they were building their vessel. The group of which it is one, is called the Oak Islands.

"The grove of oak on this island was beautiful, forming an extensive wood, with no undergrowth. The species that grows here is a white oak of very close grain. Its specific gravity is much greater than water; and it is used for the purposes to which we apply both oak and hickory. It makes excellent hoops for casks, and is the only timber of this region that is considered durable.

"The falls of Willamette are about twenty feet in height, and probably offer the best mill sites for any place in the neighbouring country. Being at the head of navigation for sea vessels, and near the great wheat-growing valley of Willamette, it must be a place of great resort. A Mr. Moore, from the western states, whom I saw on the Willamette, informed me that he had taken possession of the west side of the falls, under a purchase from an old Indian chief. Whether such titles will be recognised by the government, is already a matter of speculation in the country; and there is much talk of pre-emption rights, &c.

"At the time of our visit to the falls, the salmon fishery was at its height, and was to us a novel as well as an amusing scene. The salmon leap the fall; and it would be inconceivable, if not actually witnessed, how they can force themselves up, and after a leap of from ten to twelve feet, retain strength enough to stem the force of the water above. About one in ten of those who jumped would succeed in getting by. They are seen to dart off the foam beneath, and reach about two-thirds of the height, at a single bound: those that thus passed the apex of the running water, succeed; but all that fall short, were thrown back again into the foam. I never saw so many fish collected together before; and the Indians are constantly employed in taking them. They rig out two stout poles, long enough to project over the foaming cauldron, and secure their larger ends to the rocks. On the outer end, they make a platform for the fisherman to stand on, who is perched on it with a pole, thirty feet long, in hand, to which the net is fastened by a hoop, four feet in diameter: the net is made to slide on

the hoop, so as to close its mouth when the fish is taken. The mode of using the net is peculiar : they throw it into the foam as far up the stream as they can reach, and it being then quickly carried down, the fish who are running up in a contrary direction, are caught. Sometimes twenty large fish are taken by a single person in an hour ; and it is only surprising that twice as many should not be caught."

The Willamette river, at the falls, is 350 yards wide. The height of the fall about twenty-five feet.

The number of Indians at the Willamette falls during the fishing season, is about seventy, including all ages and sexes : there are others who visit the falls in canoes for fish, which at times will raise the number to not far from 100.

Those fish which are unable to get up, remain some time at the falls, very much exhausted, and finally resort to the smaller streams below.

The rocks above the falls change their character. Much volcanic scoria, vesicular lava, and pudding-stone, intermingled with blocks of trap, and many crystals of quartz occur. On the rocks are to be seen large knots of lamprey eels, warming themselves up, which look at a little distance as if alive with snakes.

Above the falls, in crossing the river, they passed through an Indian village, "which was absolutely swarming with fleas ; a filthier place cannot be found in Oregon." Above the falls, the current was strong, and they made but little headway ; and the boatmen, in order to take advantage of the smallest eddies, crossed and recrossed the river. The banks became much higher and more picturesque, and this part of the Willamette is considered dangerous when the floods are high, and accidents frequently occur.

Before night, they encamped above "the Stony Islands," on a barren point of land, at some height above the river. Here they found various mosses in flower.

"At this season of the year," Captain Wilkes observes, "the river is not high ; its rise usually takes place in February and March, when it becomes very much swollen, and with its tributaries does much damage. These floods, however, are of very short duration, for the descent is so rapid that the waters are soon discharged. It was raining quite hard when we passed Camp Maude du Sable, a sandy point just at the opening out of the Willamette valley, which was one of the points originally occupied when the river was first explored by the whites. About two miles further up, the river is Champooing, eighteen miles above the falls, which we reached at about four p. m. Here we found a few log-houses, one of which belonged to a Mr. Johnson, who gave us a hearty welcome. He was formerly in the navy, then a trapper in the Hudson Bay Company's service, but had commenced farming on the Willamette, and taken to himself an Indian girl for a wife, by whom he had several children. He had them educated. His wife was extremely industrious, making and mending, and taking care of the

household concerns, and is rather pretty. Johnson's estimate of her," says Captain Wilkes, "was that she was worth about half-a-dozen civilised wives. There was little cleanliness, however, about his house, and many of the duties were left to two young male slaves, of Indian blood, but of what tribe I did not learn. Johnson's farm consists of about forty acres under cultivation; his wheat and potatoes were flourishing, and he had a tolerable kitchen-garden. He has some little stock, but complained much of the Oregon tiger, or American panther. These voracious animals are numerous and bold; the night before we arrived, they had entered the pen and killed a calf regardless of the dogs.

" We were informed that there are plenty of elk and deer, and that the grizzly bear is also common. The flesh of the latter animal is very much esteemed. Wild ducks and geese are numerous in the spring and fall, covering the rivers, lakes, and ponds."

One of Johnson's neighbours, was an old man by the name of Cannon, who had been one of the party with Lewis and Clarke, and was, from his own account, the only remaining one in the country. Another, old Moore, who taught Johnson's children, possessed much information in relation to the country he had passed through. He had crossed the mountains the year before, and said he found no difficulty in making the trip. The great drawback to the country on the route up the Willamette, is the want of wood.

Captain Wilkes, having found an intelligent guide, and having mounted on horseback, rode up the Willamette valley. He passed many small farms of from fifty to one hundred acres, belonging to the old servants of the Hudson Bay Company, Canadians who had settled here; they all appeared very comfortable and thriving. "We stopped," says Captain Wilkes, "for a few hours at the Catholic mission, twelve miles from Champooing, to call upon the Rev. Mr. Bachelét, who is here settled among his flock, and is doing great good to the settlers in ministering their temporal as well as spiritual wants.

"Annexed to his house is a small chapel, fully capable of containing the present congregation. They are erecting a large and comfortable house for Mr. Bachelét, after which it is intended to extend the chapel. These houses are situated on the borders of an extensive level prairie, which is very fertile, having a deep alluvial; they also have near them a forest of pine, oak, &c. They are now occupied in turning of the fields for the first time. Mr. Bachelét informed me that it was intended to take enough of land under cultivation to supply a large community that will be attached to the mission; for it is the intention to establish schools here for the instruction of the Indians, as well as the Canadians and other settlers. He has already ten Indian children under his care. The mission had been established about a year, and it had already done much good. When he first arrived, all the settlers were living with Indian women whom they had since married. This was the first step he had taken towards their moral im-

provement, and he had found it very successful. There were about thirty Canadian families settled here, besides about twenty persons who have no fixed residence and are labourers. The number of Indians is estimated at between 400 and 500 including all tribes, sexes, and ages. The district under Mr. Bachelét's superintendence, takes in about fifty square miles, including the Willamette valley, Faulitz and Yam Hill Plains, and extending below the Willamette falls, as far as the Klackamus River. The number of white residents, including the missionaries of both denominations, is thought to be about sixty."

Captain Wilkes dined with Mr. Bachelét on oatmeal porridge, venison, strawberries, and cream.

Soon after leaving, the party arrived at where some American and English had settled; and entered on the grounds of the Methodist mission. Here were the log-houses which were built when they first settled here; and in the neighbourhood, the wheelwrights' and blacksmiths' workshops, belonging to the mission; and the hospital, built by Dr. White, who was formerly attached to the mission. It was still used as a residence for some of the missionaries, and is said to be the best building in Oregon.

"This place," says Captain Wilkes, "seemed an out-of-the-way place to find persons of delicate habits struggling with difficulties such as they have to encounter, and overcoming them with cheerfulness and good-temper. Near the hospital are two other houses, built of logs, in one of which Dr. Babcock, the physician of the mission, lives. He stated that the country was healthy, although during the months of August and September, they were subject to fever and ague on the low grounds, but in high and dry situations, he believed they would be free from it. A few other diseases existed, but they were of a mild character, and readily yielded to simple remedies.

"The lands of the Methodist mission are situated on the banks of the Willamette River, on a rich plain adjacent to fine forests of oak and pine. They are about eight miles beyond the Catholic mission, eighteen miles from Champooing, in a southern direction. Their fields are well enclosed, and we passed a large one of wheat, which we understood was *self-sown* by the last year's crop, which had been lost through neglect. The crop so lost amounted to nearly 1000 bushels, and it is supposed that this year's will yield twenty-five bushels to the acre. About all the premises of this mission crop, there was an evident want of the attention required to keep things in repair, and an absence of neatness that I regretted much to witness."

The next day, Captain Wilkes visited "the Mill," distant about nine miles, in a southern direction. They passed in the route several prairies, both high and low. The soil on the higher was of a gravelly or light nature, while on the lower it was a dark loam, intermixed with a bluish clay. "The prairies are at least one-third greater in extent than the forest; they were again seen carpeted

with the most luxuriant growth of flowers, of the richest tints of red, yellow, and blue, extending in places a distance of fifteen to twenty miles. The timber we saw consisted of the live and white oak, cedar, pine, and fir.

"During the whole summer both mills are idle for want of water, the stream on which they are situated being a very small one, emptying into the Willamette. We found here two good log-houses, and about twenty lay members, mechanics of the mission. There are, besides, about twenty-five Indian boys, who, I was told, were not in a condition to be visited or inspected. Those whom I saw were nearly grown up, ragged, and half-clothed, lounging about under the trees. Their appearance was any thing but pleasing and satisfactory; and I must own I was greatly disappointed, for I had been led to expect that order and neatness, at least, would have been found among them, considering the *strong force* of missionaries engaged here.

The number of Indians within the limits of this mission, are, at Nisqually, 200; Clatsop, 209; Chinooks, 220; Kilamukes, 400; Callapuyas, 600; Dalles, 250: in all this district, about 2000 Indians. This field is in part occupied by the Catholics.

"The next day (9th of June), we started for the *Yam Hills*, which divide the valleys of the Willamette and Faulitz. They are of but moderate elevation; the tops are easily reached on horseback, and every part of them which I saw, was deemed susceptible of cultivation. The soil is a reddish clay, and bears few marks of any wash from the rains. These hills are clothed to the very top with grass, and afford excellent pasturage for cattle, of which many were seen feeding on them. On our route through the Yam Hills, we passed many settlers' establishments. From their top the view is not unlike that from Mount Holyoake, in Massachusetts, and the country appears as if it were as much improved by the hand of civilisation. The oak trees sprinkled over the hills and bottoms have a strong resemblance to the apple orchards. The extent of country we looked over is from twenty-five to thirty miles, all of which is capable of being brought to the highest state of cultivation. There are, in truth, few districts like that of the valley of Faulitz.

This part of Willamette valley is a prolonged level of many miles in extent, circumscribed by the woods, which have the appearance of being attended to, and kept free from undergrowth. This is difficult to account for except through the agency of fire destroying the seeds. The Indians are in the habit of burning the country yearly, in September, for the purpose of drying and procuring the seeds of the sunflower, which they are thus enabled to gather with more ease, and which form a large portion of their food. That this is the case appears more probable from the fact, that since the whites have had possession of the country, the undergrowth is coming up rapidly in places.

Of the different settlers in the valley of the Willamette, Captain Wilkes says,

"Those of French descent appeared the most happy, contented, and comfortable; while those of Anglo-Saxon race manifested the go-a-head principle of the American citizens.

The Willamette River sometimes rises suddenly thirty feet perpendicular. He crossed the Yam Hills to the Faulitz plains. The hills on the way were covered with wall-flowers, lupins, and ripe strawberries. The cattle brought to this valley were originally from San Francisco; and were increasing rapidly in numbers, no care being taken of them but driving them into the pens for security during the night. On returning down the Willamette valley, they found salt springs, to which cattle and game resort in great numbers. The inhabitants on the Willamette stated to him, that they could obtain abundance of food for the year from the pastures, and the growing of wheat being little more than one month's labour. In fact, that they might pass in idleness at least two-thirds of the year. The climate was, however, complained of as too wet for growing Indian corn, though excellent for pasture.

Captain Wilkes observes "In speaking of the Willamette valley, I have viewed its advantages for raising crops, pasture of stock, and the facilities of settlers becoming rich. There is, however, one objection to its ever becoming a large settlement, in consequence of the interruption of the navigation of its rivers in the dry season; which renders it difficult to get to a market, as well as to receive supplies.

SALMON FISHERY.—The salmon fishery affords abundant food at a very low price, and of excellent quality: it does not extend above the falls. He found it impossible to obtain any data to found a calculation of the quantity taken, but estimated it at 800 barrels. The finest of the salmon are those caught nearest the sea. "The settlers and Indians," he says, "told us that the salmon, as they pass up the river, become poorer, and when they reach the tributaries of the Upper Columbia, they are exceedingly exhausted, and have their bodies and heads much disfigured and cut, and their tails and fins worn out by contact with the rocks. Many of the salmon, in consequence, die; these the Indians are in the habit of drying for food, by hanging them on the limbs of trees. This is to preserve them from the wolves, and to be used in time of need, when they are devoured, though rotten and full of maggots. The fish of the upper waters are said to be hardly edible, and, compared with those caught at the mouth of the Columbia are totally different in flavour. The latter are the richest and most delicious fish I ever recollect to have tasted; if any thing, they were too fat to eat, and one can perceive a difference even in those taken at the Willamette falls, which, however, are the best kind for salting. There are four different kinds of salmon which frequent this river in different months; the latest appears in October, and is the only one that frequents the Cowlitz river. The finest sort is a dark silvery fish, of large size,

three or four feet long, and weighing forty or fifty pounds. There is one point which seems to be still in doubt, namely, where the spawn of this fish is deposited. It is asserted, and generally believed, that none of the old fish ever return to the sea again. It has not been ascertained whether the young fry go to the ocean : and if they do so, whether as spawn or young fish."

On returning to Vancouver, Captain Wilkes found that Mr. Ogden, the Hudson Bay agent in the north, had arrived with his voyageurs. That gentleman had then been thirty-two years in the territory, and possessed much information respecting it, having travelled nearly all over it. He resides at Fort St. James, on Stuart's lake, and has six posts under his care.

The northern section of the country he represented "as not susceptible of cultivation on account of the proximity of the Snowy Mountains, which causes sudden changes, even in the heat of summer, that would destroy the crops. His posts are amply supplied with salmon from the neighbouring rivers, which flow down into the sounds on the coast. These fish, when dried, form the greatest part of the food of those employed by the company during the whole year. Their small stores of flour, &c., are all carried up the country from Colville to Vancouver. Furs, which are more abundant in the northern region, and are purchased at lower prices from the Indians." The return this year (1841), brought down by Mr. Ogden, was valued at 100,000 dollars, which he informed Captain Wilkes was much less than the usual amount. The southern section of Oregon, he was informed, scarcely repaid the expense of an outlay for a party of trappers. "The southern country is, however," says Captain Wilkes, "well adapted to the raising of cattle and sheep ; of the former many have been introduced by parties, which trap on their way thither, and return with cattle. Although there were but a few heads of them four or five years before, in 1841 there were upwards of 10,000. The whole country is particularly adapted to grazing, which, together with the mildness of the climate must cause this region to become, in a short time, one of the best stocked countries in the world. The price of cattle may be quoted at ten dollars a head ; but those that are broken in for labour, or milch cows, command a higher price ; and in some places in the Willamette valley, they have been sold for the enormous price of eighty dollars. Every endeavour is made to keep the price of cattle up, as labour is usually paid for in stock. The price of labour for a mechanic may be set down at from *two dollars and a half to three dollars* a day ; and there is much difficulty to procure them even at that rate. The wages for a common labourer is one dollar per day. The price of wheat is fixed at sixty-two cents and a half (about 2s. 6d.) per bushel, by the company, for which any thing but spirits may be drawn from the stores, at the low advance of fifty per cent on the London cost. This is supposed, all things taken into consideration, to be equal to one dollar and twelve cents per bushel ; but it is difficult for the settlers so to understand it, and they are by no

means satisfied with the rate. There is a description of currency in the country called *beaver money*; which seems to be among the whites what blankets are among the Indians. The value of the currency may be estimated from the fact, that a *beaver skin* represents about *two dollars* throughout the territory."

The river Columbia between the Cascades and the Dalles, a distance of forty miles, has no rapids, and is navigable for vessels drawing twelve feet of water. It flows through high rocky banks of basalt.

The missionaries informed Mr. Drayton, that the salmon fishery at the Dalles lasted six months, and that sturgeon are taken during the greater part of the year.

The Dalles is appropriately called the Billingsgate of Oregon. The diversity of dress among the men was greater even than in the crowds of natives which Captain Wilkes saw at the Polynesian islands; but, he says, they lack the decency and care of their persons which the islanders exhibit. The women also go nearly naked, for they wear little else than what may be termed a breech-cloth of buck-skin, which is black and filthy with dirt; and some have a part of a blanket. The children go entirely naked, the boys wearing nothing but a small string round their body. It is only necessary to say that some forty or fifty live in a temporary hut, twenty feet by twelve, constructed of poles, mats, and cedar bark, to give an idea of the degree of their civilisation.

"The men are engaged in fishing, and do nothing else. On the women falls all the work of skinning, cleaning, and drying the fish for their winter stores. As soon as the fish are caught, they are laid for a few hours on the rocks, in the hot sun, which permits the skins to be taken off with greater ease; the flesh is then stripped off the bones, mashed and pounded as fine as possible; it is then spread out on mats, and placed upon frames to dry in the sun and wind, which effectually cures it; indeed, it is said, that meat of any kind dried in this climate never becomes putrid. Three or four days are sufficient to dry a large matful, four inches deep. The cured fish is then pounded into a long basket which will contain about eighty pounds; put up in this way, if kept dry, it will keep for three years.

During the fishing season the Indians live entirely on the heads, hearts, and offal of the salmon, which they string on sticks, and roast over a small fire.

The fishing is conducted very much in the same manner as at Willamette falls, except that there is no necessity for planks to stand on, as there are great conveniences at the Dalles for pursuing this fishery. They use hooks and spears attached to long poles: both the hook and the spear are made to unship readily, and are attached to the pole by a line four feet below its upper end. If the hook were made permanently fast to the end of the pole, it would be liable to break, and the large fish would be much more difficult to take. The Indians are seen standing along the walls of the canals in great numbers, fishing, and it is not uncommon for them to take from twenty to twenty-five salmon in an hour. When

the river is at its greatest height, the water is about three feet below the top of the bank.

The Dalles is one of the most remarkable places upon the Columbia. The river is here compressed into a narrow channel, 300 feet wide, and half a mile long; the walls are perpendicular, flat on the top, and composed of basalt; the river forms an elbow, being situated in an amphitheatre, extending several miles to the north-west, and closed in by a high basaltic wall. From appearances, one is led to conclude, that in former times the river made a straight course over the whole; but having the channel deeper, is now confined within the present limits. Mr. Drayton, on inquiry of an old Indian, through Mr. Ogden, learned that he believed, that in the time of his forefathers they went up straight in their canoes.

Besides the main channel, there are four or five other small canals, through which the water passes when the river is high: these are but a few feet across. The river falls about fifty feet in the distance of two miles, and the greatest rise between high and low water mark is sixty feet. This great rise is caused by the accumulation of water in the river above, which is dammed by this narrow pass, and is constantly increasing until it backs the waters, and overflows many low grounds and islands above. A tremendous roar is constantly heard, caused by the violence of the river and its whirlpools and eddies.

The officers of the company have but little time allowed them to attend to their comforts; so completely are they under the control of accident, that they are liable to be called upon at any moment. Their rights, however, are looked to as much as possible, and the great principle adopted as the incentive to action, is the advancement they may obtain by their own merit, through which alone they can get forward. In consequence of adhering to this principle, the Hudson's Bay Company are always well served. The discipline that is preserved is the very best, and sits lightly upon all. Those who do not meet with advancement, have some great fault in a trader's eye. The enterprise and energy required to serve this company well, is of no ordinary kind, and few men exhibit more of both these qualities than those I met with in its employ.

The number of Indians within the Dalles mission is reckoned at about 2000; in but few of these, however, has any symptom of reform shown itself. They frequent the three great salmon fisheries of the Columbia; the Dalles, Cascades, and Chutes, and a few were found at a salmon fishery about twenty-five miles up the Chutes river.

The season for fishing for salmon, which is the chief article of food in this country, lasts during five months, from May to September. The country also furnishes quantities of berries, nuts, roots, and game, chiefly of bears, elk, and deer; but owing to the improvidence of the native inhabitants, they are, notwithstanding this ample source of food, often on the verge of starvation.

After the fishing and trading season is over, they retire to their villages, and

pass the rest of the year in inactivity, consuming the food supplied by the labours of the preceding summer ; and as the season for fishing comes round, they again resort to the fisheries.

The country about the Dalles is broken, and the missionaries report that this is the case for some miles around. There are, however, some plains and table lands, which are considered as very fertile, being well watered with springs and small streams ; affording abundant grazing, and well supplied with timber —oak and pine. The soil varies in quality, and portions of it are very rich. Garden vegetables succeed, but require irrigation. Potatoes also must be watered, by which mode of culture they succeed well. Corn and peas can be raised in sufficient quantities. The produce of wheat is about twenty-five bushels to the acre : this is not, however, on the best land. They sow in October and March, and harvest begins towards the end of June. The climate is considered healthy; the atmosphere is dry, and there are no dews. From May till November but little rain falls, but in winter they have much rain and snow. The cold is seldom great, although during the winter preceding our arrival, the thermometer fell to 18 deg. Fahrenheit. The greatest heat experienced in the summer was 100 deg. in the shade ; but even after the hottest days, the nights are cool and pleasant.

At daylight on the 3rd of July, the goods were all embarked. When the party reached the Chutes : a portage over which they carried their goods for a quarter of a mile, and in an hour and a half they were again on their way above these rapids.

During very high water, the fall, whence the place takes its name, is not visible, but when it is low, there is a fall of ten feet perpendicular, that occupies nearly the whole breadth of the river. It is impossible to pass this fall at low water ; but when the river is swollen, boats shoot it with ease and safety. The Columbia, from the Chutes as far as John Day's River, is filled with rocks, which occasion dangerous rapids. The boats were, in consequence, tracked for the whole distance.

After passing the Dalles, an entirely new description of country is entered. The line of wood extends no further. The last tree stands on the south side of the river, about six miles above the Dalles. The woods terminate at about the same distance from the coast in all parts of this region south of the parallel of 48 deg. north.

The country between these places is decidedly volcanic, and the banks on either side of the river are rocky and high. In this part of the country it is very hot when there is no wind.

Mr. Drayton had no thermometer, and therefore was unable to ascertain the exact degree of heat—but any metallic substance exposed to the sun for a short time, became so hot, as not to be held in the hand without suffering, and the men were nearly exhausted with the oppressive heat.

John Day's River falls into the Columbia from the south. It abounds with

salmon, and, to catch which, the Indians resort to it, and erect temporary lodges during the salmon season. This part of Oregon is described as a rocky region, with vast quantities of fine sand, brought down the freshets of the river, and deposited, where the Indian or trading encampments are made. When proceeding up and down the Columbia, these sand-banks become in summer exceedingly dry and hot. Few places can be more uncomfortable to encamp upon.

A basaltic wall rises 900 or 1000 feet within 200 yards of the encampment, and reflects the sun's rays down upon the white sand-beach, the heated atmosphere becomes, in consequence, almost insupportable; the rocks, an hour after the sun had set, were found too hot to sit upon. At the time of encamping they had a *rattle-snake hunt*, and several large ones were killed.

The party proceeded upwards the next morning with the rising sun, a breeze carried them onwards, and about eight miles above their encampment, they came to the *Hieroglyphic Rocks*, upon which are supposed to be recorded the deeds of some former tribe.

Above John Day's River, the country becomes much lower, more arid, and the stream of the Columbia less rapid. The weather continued exceedingly hot, and islands, or dry banks in the river, were passed, composed entirely of drifted sand. At the long reach, below Grand Island, the country is sandy and flat up to the Grand Rapid Hills.

Proceeding up the long reach, the voyageurs exchanged the pole for the tow-line and oar, and the Indians being no longer wanted, were discharged.

The distance ascended this day, aided by the breeze, was fifty-seven miles; the previous day the progress was only sixteen miles. While passing close along the banks, numerous *pintailed* grouse were so tame as to allow the boats to approach within a few yards.

All along the Columbia, from the Dalles upwards, there was only one tree seen growing, and, except a log or trunk drifting down occasionally, nothing larger than a splinter of wood was seen. The wood used for cooking was brought there by the Indians, who would follow the party for miles with a long pole, or a billet of wood, which they exchanged for a small piece of tobacco. The Indians also sold the party several large hares of extremely fine flavour.

The country upwards continued to be, as far as could be seen, on both sides of the Columbia, a barren and sterile waste, covered with white sand, mixed with pebbles, producing nothing but a little grass, some hard wood, and a species of small cactus, filled with long, white, hard, and sharp spines.

On the 6th of July, the party reached the foot of the Grand Rapids, up which the boats were tracked. They afterwards passed along the foot of Grand Rapid Hills, which consist of basalt, lava, and scoria. These hills rise abruptly near the river, and are fast crumbling and falling into the stream.

Eighteen miles below Walla-walla, they passed the Windmill Rock, near which arise a number of basaltic peaks. On approaching Walla-walla, the scenery changes into bold grandeur. Fantastic volcanic peaks arise, either isolated or in groups. Through a pass in the river which flows rapidly through volcanic rocks, the wind rushes with great violence in summer, to restore the equilibrium in the rarified atmosphere above.

About a mile and a half below the Hudson Bay Company's fort, Nez Percé at the junction of the Willamette, the banks of the river become flat, and during floods scarcely rise above the stream. This low ground is composed of pebbles and drifting sand for several miles to the east and to the north, with little or no soil for arable purposes. It produces nothing but scattered tufts of bunch grass and wormwood.

NEZ PERCÉ; or, Fort Walla-walla is about 200 feet square, and fenced in with *pickets*: having a gallery erected within; along the walls, so high as to enable those inside to overlook the pickets, and observe the surrounding country. It has two bastions, one on the south-west, and the other on the north-east. On the inside are several buildings, constructed of logs and mud; one of which is the Indian store; the whole is covered with sand and dust, which is blown about in vast quantities. The climate in summer is very hot, and every thing about the fort seemed so dry, that it appeared that a single spark would ignite the whole, and reduce it to ashes.

Mr. Ogden informed the party, that the most experienced voyageur is taken by him for the brigade as pilot, or bowman of the leading boat. This post is considered one of great trust and honour. Each other boat has also its bowman, who is considered the first officer and responsible man; the safety of the boat in descending rapids, particularly, depends upon the bowman, and the *padroon* who steers the boat. They both use long and *broad blade* paddles; and it is surprising how much power both possess over the direction of the boat. These men, from long training, become very expert, and acquire extraordinary self-possession, courage, and dexterity amidst the most frightful dangers. Their laborious fidelity and endurance are remarkable; for a remuneration of no more than 17*l.* sterling a year, pay, and the coarse fare they receive. Their food consists of coarse bread, made of unsifted flour or meal, dried salmon, fat (tallow), and dried peas.

Captain Wilkes "is satisfied, that no American would submit to such food; the Canadian and Iroquois Indians use it without murmuring, except to strangers, to whom they complain much of their scanty pay and food. The discipline is strict, and of an arbitrary kind; yet they do not find fault with it."

Very few of those who embark or join the company's service, ever leave the part of the country they have been employed in; for after the expiration of the first five years, they usually enlist for five more. This service of eight years, in

a life of so much adventure and hazard, attaches them to it, and they generally continue till they are old men; when, being married, and having children by Indian women, they retire under the auspices of the company, to small farms, either on the Red or Columbia rivers. There is no allowance stipulated for their wives or children; but *one* is usually made, if they have been useful. If a man dies, leaving a family, although the company is not under any obligation to provide for them, they are generally taken care of. "The officers of the company are particularly strict in preventing its servants from deserting their wives; and none can abandon them without much secrecy and cunning. In cases of this sort the individual is arrested, and kept under restraint, until he binds himself with security, not to desert his family. The chief officers of the company hold the power of magistrates over their own people, and are bound to send fugitives or criminals back to Canada for trial, where the courts take cognizance of the offences.

"The community of old voyageurs settled in Oregon, are thus constrained to keep a strict watch upon their behaviour; and although perhaps against their inclinations, are obliged to conform to the wishes of those whose employ they have left."

The brigade of voyageurs and traders under Mr. Ogden, proceeded up the Columbia to Okonagon, and the American party rode upwards of twenty miles before dark, passing over the pasture grounds of the horses belonging to the company. Some months before several horses were driven by the wolves over an alluvial bank, about 100 feet in height, and killed and eaten by those voracious beasts, which are very numerous in this territory.

They passed over borders of the Walla-walla, for about half a mile from its banks. As far as seen by the party, the country was green and fertile.

The banks of the small tributaries falling into the Walla-walla were of a similar character. To the north and south are extensive prairies, covered with the natural hay of the country, on which the cattle feed. This natural grass grows up spontaneously and luxuriantly with the early spring rains.

It is afterwards, on the ground, without cutting, actually transformed into hay by the great heat and drought of the month of July.

It is not withered, but suddenly dried with its nutritive qualities retained. In this state cattle prefer it even to the young green grass of the meadows bordering the streams.

The party visited the American mission Wailaptu, established in 1837. There is a second missionary station, Lapwai (clear water), at the mouth of the Kooskooskee. There was a third, Kamia, instituted about sixty miles up that river. It was abandoned in two years as useless.

The mission at Chimikaine, is about sixty miles south-east of Fort Colville, and near the river Spokane, a stream falling into the Columbia.

At the first mission, Wailaptu, the party found two houses, each of one story,

built of adobes, with mud roofs, to insure a cooler habitation in summer. Also a small saw-mill and some grist-mills, all moved by water; a kitchen-garden in which grows all the ordinary kinds of vegetables raised in the United States, and several kinds of fine melons. The wheat, some of which stood seven feet high, was nearly ripe. Indian corn grew as high as nine feet in flower. The soil in the vicinity of the small streams near the mission, was found to be a rich black loam, and very deep; but the whole area fit for cultivation along these streams did not amount to more than 10,000 acres. Parts are annually overflowed by the rivers; and the whole might, if necessary, be easily irrigated.

These streams take their rise in the Blue Mountains, about forty miles east of Walla-walla, and are never known to fail.

"The climate of this district," says Captain Wilkes, "is very dry, as it seldom rains for seven or eight months in the year. During the greater part of this time, the country, forty miles north and south of this strip, has an arid appearance. There are large herds of horses owned by the Indians, that find excellent pasture in the natural hay on its surface. There is a vast quantity and profusion of edible berries on the banks of the stream above spoken of, consisting of the service berry, two kinds of currants, whortleberry, and wild gooseberries; these the Indians gather in large quantities for their winter supplies."

"The *Grande Ronde* is a plain or mountain prairie, surrounded by high basaltic walls. This is called by the Indians 'Karpkarp,' which is translated into Balm of Gilead. Its direction from Walla-walla is east-south-east, and the road to the United States passes through it. It is fifteen miles long by twelve wide, and is the place where the Cayuse, Nez Percé, and Walla-walla Indians meet to trade with the Snakes or Shoshones, for roots, skin-lodges, elk, and buffalo meat, in exchange for salmon and horses.

"The *Grande Ronde* is likewise resorted to for the large quantities of *cam-mass-root* that grows there, which constitutes a favourite food with all the Indians. The missionaries have quite a number of cattle and horses, which require little or no attention, there being an abundance of hay and grass. The price of a good horse is twenty dollars. This district is capable of supporting a vast number of cattle. One *Cayuse* chief has more than 1000 horses on these feeding grounds."

The winters are described of about three months' duration, and snow remains on the ground for only a short time. Grass grows all winter. Mr. Kinley, of the Hudson Bay Company, passed from the north-west or Snake Indian country across the Blue Mountains in January, 1841. He found the snow on the mountains five to six feet deep and the weather intensely cold. On descending to the plains and the *Grande Ronde*, the following day the temperature was agreeably warm; the grass was green, and the flowers in bloom. Trees re-appear on the banks of the Walla-walla, chiefly poplar, willow, birch, and alder.

The poplar grows to the thickness of about two and a half feet, and to the height of about 100 feet.

Captain Wilkes says little that is satisfactory of the success of the labours of the missionaries. "The Indians wander away, and seldom continue more than three or four months in the same place. After they return from the Grande Ronde, which is in July, they remain for three or four months and then move off to the north and east to hunt buffalo. After their return from the Buffalo hunt they are again stationary for a short time." The Indians have begun irrigating their arable lands, in imitation of the missionaries. There are grouse, curlew, and two kinds of hare, and some other sorts of game abound in this district.

In company with Mr. Gray the party proceeded from the Mission to the Blue Mountains. On their way they passed through large herds of horses belonging to the Cayuse Indians: the soil improved. It consisted chiefly of decomposed scoria of a reddish colour, finding luxuriant grass here in every direction; and the grass in such places, from receiving more moisture, is more luxuriant. They ascended from the prairie up the mountain to "the snowline," about 5600 feet. The pine-forest extend up to this height, and the Walla-walla, with its numerous branches, could be seen wending through the plains beneath until it flowed into the Columbia River.

Captain Wilkes observes, "There seems to be a peculiarity about the climate at Walla-walla not readily to be accounted for. It has been stated above that little winter weather is experienced here, and that this mildness is owing to the hot winds of the south, which sweep along from the extensive sandy deserts existing in Upper California. This wind or simoon during the summer is held in great dread in this part of the country, for it is of a burning character that is quite overpowering. It generally comes from the south-west. In consequence of this feature of the climate there is very little vegetation near the fort, not only on account of the heat and dryness, but owing to the vast clouds of drifting sand which are frequently so great as to darken the sky. In summer it blows here constantly, and at night the winds generally amount to a gale." A phenomenon is observed at the junction of the *Columbia* and *Snake Rivers*. The current of the *Columbia*, flowing from the north, is remarkably cold; the *Snake River*, flowing from the south, is warm. "This difference is perceived even at Walla-walla, for the water passing along the east shore near the fort is too warm to drink, and when they desire to have cooler water for drinking it is brought from the middle of the river by a canoe."

The crops of all descriptions of grain were good, which Captain Wilkes supposed to be the best criterion of the climate. The temperature of the western section throughout the year, is mild; with little extreme heat in summer, or severe cold in winter. He considered this to be owing to the constant prevalence

of the south-westerly or ocean winds. "It certainly is not owing to the influence of any warm stream setting along its shores. The current near the coast sets to the south east, and is of a cold temperature: it would rather tend to lessen the heats in summer than the cold in winter. There have been no observations kept by the missionaries in this lower section of the country. It is liable, from the experience of our parties, to early frosts, owing to the proximity of the snowy mountains. Frosts sometimes occur in the latter part of August, which check all vegetation at that early season."

"The climate throughout Oregon is thought to be salubrious for the white race; and was considered so by the Indians, prior to the year 1830, when the ague and fever, or any disease resembling it, was not known to exist. The Indians fully believe to this day that Captain Dominis introduced the disease in 1830. Since that time it has committed frightful ravages among them, not so much, perhaps, from the violence of the disease itself, as the manner in which they treat it. It was not until quite lately that they were willing to be treated after our mode, and they still in many cases prefer the incantations and practices of the medicine-man."

SURVEY OF THE COLUMBIA RIVER, 1841, BY THE UNITED STATES EXPLORING EXPEDITION.

THE United States ship of war, Peacock, having been totally wrecked in attempting to enter the Columbia, Captain Wilkes afterwards fitted out the boats of that vessel, fully manned, with all the requisites for surveying duties and with an officer commanding each boat, in order to make a complete survey of that river. The operations were attended with more than ordinary difficulties. They encamped the first night on a small sandy island in the centre of the bay, where their position was rendered uncomfortable by the sand which was drifted about by the wind. In the morning they were enveloped in a thick fog, and as the water of the Columbia was not fresh as low down as this point, they had to send a party for fresh water to Baker's Bay.

Captain Wilkes describes the tide as exceedingly strong, and having some apprehensions that the boats might lose their way, he thought it better to make for the Chinook shore, and follow it until they reached the Cape.

"It may seem strange," he says, "that this precaution should be taken, but it is necessary at all times, even in clear weather; for the tide is frequently so strong, that it cannot be stemmed by oars, and too much caution cannot be observed in passing across the bay. As little frequented as it is, many accidents have occurred to boats and canoes, by their being swept by the tide into the breakers on the bar, where all hands have perished. The Indians are very cau-

tious, and it is only at certain times of the tide they will attempt to make the passage. We reached Baker's Bay in two hours, and formed our encampment—and here we determined to remain until the weather should become clear, and allow us to proceed with our duties."

During the occupation of Astoria by the expedition, Captain Wilkes observes, "the place became quite civilised-looking, in comparison to what it was on my first arrival, and a mart for all the commodities of the country. Besides our own men, there were many Indians to be seen lounging and moving about, seeking employment, or with some small articles to sell.

"Short excursions were made by many of us in the vicinity, and one of these was to visit the primeval forest of pines in the rear of Astoria, a sight well worth seeing. The soil on which this timber grows is rich and fertile, but the obstacles to the agriculturist are almost insuperable. The largest tree was thirty-nine feet six inches in circumference, eight feet above the ground, and had a *bark eleven inches thick*. The height could not be ascertained, but it was thought to be upwards of two hundred and fifty feet high, and the tree was perfectly straight."

When the Peacock was wrecked, the Kilamukes, Clatsops, and Chinooks were collected in the neighbourhood, it being the season of the fishery: many of these came with their families, and took up their abode near Astoria. They generally had for sale salmon, venison, sturgeon, moccassins, and mats.

When the crew first landed, eight or ten salmon might be bought for a cotton shirt, or its value in red or green baize; but the Indians soon found that higher prices might be obtained for the asking, and before the departure of the expedition from the Columbia River, the price was enhanced one-half.

Having completed all the arrangements, and the weather becoming fine, on the 16th Captain Wilkes resumed the survey. The stations being established, and the triangulation completed, the tender, with two boats, was left to sound the bay outwards, while the remaining part of the force proceeded up the river, to continue the surveys in company with the vessels, Porpoise and Oregon (the latter purchased to replace the Peacock). Captain Wilkes found it necessary that both vessels should proceed up to Vancouver, in order to insure a more thorough outfit for the Oregon, and to afford the officers and men quarters at night to protect them during the sickly season that was approaching, and of which he had received very unfavourable accounts.

On the 18th of August, Captain Wilkes left Astoria, with the Porpoise and Oregon and anchored at Tongue Point, previously to crossing thence to the opposite side of the river, through the crooked channel, which was then believed to be the only passage by which a vessel of any class could ascend the stream.*

* A channel which he afterwards discovered leads directly upwards from Tongue Point, and affords every desirable facility for the navigation within the Columbia River.

"On the 19th the vessels attempted to pass through this channel, but on entering it they both took the ground. The tide was at its full height, and soon began to fall, when the Porpoise began to heel over, until she fell on her beam-ends. We were in hopes that the night-tide would be sufficient to float her off, but we found its rise less by nearly a foot than that of the day: it therefore became necessary to make extraordinary exertions to prepare for the next day's tide, by buoying her up with casks." They finally succeeded in getting her off, and ran up the river a few miles, and anchored below the Pillar Rock, opposite Waikaikum: a large lodge, picketed around with planks belonging to a chief named Skamakewea.

The next morning, in proceeding up the river to carry on the survey, one of the small boats in tow of the Porpoise was, through the negligence of her crew, capsized. Every thing in her, except her oars, was lost, and the accident caused much detention.

In the afternoon they reached Katalamet Point, and anchored at the lower end of Puget Island, where they passed the next day (Sunday.) On Monday he resumed the surveying, and reached Oak Point, where the river takes a turn to the southward and eastward. Just before reaching Walker's Island, the Porpoise ran aground, from the pilot mistaking his marks, but they got her soon afloat. In the evening of the next day, they ascended to Mount Coffin, at the mouth of the Cowlitz. This mount afforded a favourable point for astronomical observations, being 710 feet high, and quite isolated. The canoes used by the Indians as coffins are hung up in every direction, in all stages of decay. They were suspended between trees, at the height of four or five feet above the ground, and about them were hung the utensils that had belonged to the deceased, or that had been offered as tokens of respect.

Captain Wilkes remained the whole day on the top of the mount, and obtained a full set of observations, the sky being remarkably clear. An untoward circumstance happened at this place. "Here," says Captain Wilkes, "my boat's crew carelessly omitted to extinguish the fire they had used for cooking our dinner, and as we were putting off to the brig, I regretted to see that the fire had spread, and was enveloping the whole area of the mount, but there was no help for it. The fire continued to rage throughout the night, until the whole was burnt (viz., all the wood, canoes or coffins, with the dead bodies). I took the earliest opportunity of explaining to the Indians, who were in the neighbourhood, that the fire was accidental, and after receiving a few small presents, they appeared satisfied that it was so. But a few years earlier, the consequence of such carelessness would have been a hostile attack, that might have involved us in difficulty of no ordinary kind. We had a minor punishment to undergo, for the smoke was so great, that it enveloped all the signals towards the mouth of the river, and made it necessary for me to anchor within sight of Mount Coffin till the next morning."

Before reaching the mouth of the Willamette, better known here as the *Wapautoo Branch*, a long flat extends across the river, where Captain Wilkes was again unfortunately detained a few hours, by getting aground. Warriors Point, the locality where a Mr. Wyeth proposed to erect his great city of the west, was passed, and on the 28th, at sunset, the Porpoise and Oregon anchored off Vancouver. Sir George Simpson, governor of the Hudson Bay Company had, at the time, arrived overland from Canada on a tour of inspection, and on his way to visit the Russian settlement at Sitka.

The Columbia river was now greatly diminished from its swollen state during the flood season, May and June. The stream had fallen, and was confined within its narrowest limits, and was nineteen feet below high flood mark.

The Indians were encamped on the *strands*, over which the waters from the mountains had rolled in with irresistible force. Vancouver exhibited the aspect of an extensive farming establishment: the granaries, corn-stacks, showed the signs of an early and plentiful harvest.

While at Vancouver, Captain Wilkes was engaged in making astronomic and magnetic observations. The former gave its position in longitude 129 deg. 39 min. 34.6 sec. west, and latitude 45 deg. 36 min. 33 sec. north.

On the 1st of September, Messrs. Eld and Colvocoressis, midshipmen, with Mr. Brackenridge and party arrived from their detached expedition and orders were given to them to explore the region through the Chickees country to Gray's Harbour, and afterwards to join Lieutenant Emmon's party on the Willamette, and for both to proceed by that route to California.

They left Nisqually on the 19th of July, and proceeded towards one of the south-west arms of Puget Sound in two wretched canoes.

On the same evening they all arrived within a short distance of the portage; and the next morning Mr. Colvocoressis went to an old squaw chief, who had promised at Nisqually to be their guide to the Sachal River, and to furnish horses and men to cross the portage.

The portage was easily accomplished: it passes through a forest of lofty spruce and maple trees, with an undergrowth of common hazel and spiraea; its length was four miles. The soil was composed of a shallow, black, sandy, vegetable earth.

On the 31st, after passing two bends of the river, the cape on the south entrance to Gray's Harbour was observed. They met the flood-tide, which was so very strong that they made but slow progress, and as they opened out the harbour and entered it, they found a strong south-west wind blowing, with an abrupt and difficult sea, in which their canoe was nearly swamped, and which compelled them to make the lee-shore.

The tract of land bordering on the Chickees, below the mouth of the Sachap, was found well adapted for agriculture. The spruce forest extends down to the

water's edge, except in a few places around the harbour, where there are patches of salt-marsh, which produce coarse grasses and cat's-tail (*typha*). The salt-creeks, or ravines, into which the tide flows through the marshes, are generally tortuous; and the meadows are occasionally overflowed at spring-tides. The only piece of land at Gray's Harbour which appeared suitable for cultivation, was immediately within the south head; but this is of small extent. The coast, as far as Cape Shoalwater, is no more than a smooth sandy beach, which rises in a gentle acclivity to a line of low sand-hills.

GRAY'S HARBOUR seems to offer but few facilities for maritime purposes. The entrance is narrow, the width being from one-half to two-thirds of a mile, with dangerous breakers on both sides. The depth of water is from five to seven fathoms. After entering, the bay is extensive, but the greater part is filled up with mud flats, which are bare at low water, and confines the harbour suitable for the anchorage of vessels to an insignificant limit. The river Chickees, before flowing into the harbour, increases in breadth to several hundred feet, and is navigable for vessels drawing twelve feet water eight miles above its mouth. The harbour is only suitable for vessels of from 100 to 200 tons; and there are places where such vessels may find security between the mud-shoals some distance within the capes.

The tides are irregular, and influenced by the winds and weather; the time of high water at full and change was found to be 11 h. 30 min.

Fogs prevail on the coast during the summer-season. The party remained at this place for twenty-three days, three-fourths of which time it blew a strong gale from either the south-west or north-west, accompanied with a dense fog, that rendered it impossible to see further than half a mile.

The Indians in this portion of the country are not numerous. The region at the head of Puget Sound is inhabited by a tribe called the Toandos, whose number Mr. Eld was unable to learn.

This tribe lives principally on salmon, which are of excellent quality, and which they take during the season in vast quantities, in the Columbia. On the Chickees, and in its branches there are several fishing weirs and stakes. Sturgeon are also taken in great numbers.

From the circumstance of the party seldom receiving any venison from the Indians, or meeting with any, it was inferred there is but little game in this part of the country.

The party shot a few grouse, and some wild geese were seen, and the mud-flats were covered with white gulls in immense numbers, among which were a few pelicans.

On the 24th August, the expedition left Gray's Harbour, after having, by great perseverance and with much fatigue, completed the survey. Mr. Eld, in pursuance of his instructions, then proceeded to trace the coast around Cape Disappoint-

ment. The Indians whom he had hired to take the canoe around by water, preferred to pass close along the beach, inside the surf, by tracking the canoe : notwithstanding there was a heavy surf, they managed to pass along very quickly. This is the mode they always adopt in journeying along the coast with their canoes, to avoid accident from the heavy surf, which they greatly dread. The evening of the day on which they left Gray's Harbour, they reached a small islet, distant fifteen miles from Cape Shoalwater, where they found the lodge of the Chickees chief, who supplied them with dried salmon, &c.

The coast between Gray's Harbour and Cape Shoalwater is bordered by sand-hills, behind which, from the description given by the Indians, there are lagoons and streams of fresh water, in which plenty of beaver are found.

From this chief they hired another canoe, and accompanied by him they proceeded through Shoalwater Bay towards Cape Disappointment. The two canoes separated, which caused them to pass over the two portages between Shoalwater and Baker's Bay ; that to the east is about four miles and a half in length, while that to the west is six or seven miles across. The former is usually preferred by the Indians, and is one of the main passes of communication between the different tribes on the sea-coast. The woods through which they passed were of spruce-trees, some of which were of large dimensions. The lesser plants were principally vaccinium, ledums, and some candleberry-bushes (*myrica*).

On the 27th, they reached the Flying-Fish, then in Baker's Bay, and were taken over to Astoria.

HOOD'S CANAL; a long, well-sheltered inlet, and a principal arm of Admiralty Inlet, was also surveyed by another exploring party. It forms within two branches. The banks are about 100 feet high, and further upwards, rocky in some parts, and wooded ; and in others, the soil fertile ; but there are no very extensive cultivable tracts. It was formerly examined by Vancouver, but it extends ten miles further than his survey, and approaches eastward to within two miles and a half of Puget Sound ; and at the southern extremity there is a large inlet, from which the Indians pass to the Columbia and to Chickees River. The water in the middle of this sound is too deep for anchorage ; but it affords several good harbours: streams of good fresh water flow into the latter.

At the Observatory at Nisqually, the height of Mount Rainer was found to be, by trigonometrical measurement, 12,330 feet. Around Nisqually, there are beautiful rides, and the prairie ground in its natural state will admit carriages being drawn over it for several miles around the fort. The cattle are penned up at night to save them from the wolves.

Having completed the surveys of the numerous branches of Puget's Sound, they were all found to afford good harbours for the largest ships. The lands are generally low near the shore, and covered with trees, chiefly pines, besides other

trees, as spruce, oaks, arbutus, &c. Beautiful flowers, decked the prairies and banks. The soil, in some places, good, in others light and sandy. At the heads of all the branches, there are mud flats and salt marshes. The spring tides in the sound, at Nisqually, rise about eighteen feet, the neap-tides about twelve feet. He considers Nisqually ill chosen, on account of the high banks and confined anchorage for a commercial town. The country around the inlets are considered very healthy. The Indians around the plain are addicted to stealing, lazy, and dirty; they live on fish and clams, which are abundant. Shoals of young herrings appear during the salmon-fishery. The former are used as bait to take the latter. A species of rock bird was found abundant, and some so large as to weigh fifty pounds.

Captain Wilkes then observes, "The surveying parties having returned, on the 14th of September, we took leave of Vancouver. After proceeding down to the mouth of the Willamette, we anchored for the purpose of finishing the soundings, and making an examination of the channels into which the river is here divided by a few islands. This work being completed, we dropped down several miles, to overtake the sounding parties. Here we were a good deal annoyed from the burning of the prairies by the Indians, which filled the atmosphere with a dense smoke, and gave the sun the appearance of being viewed through a smoked glass. We were, fortunately, in a great degree, independent of it, as it was not necessary to see more than a short distance to discover the signals for the soundings. It, however, prevented me from verifying my astronomical stations, which I was desirous of doing."

On the 20th, Captain Wilkes descended the Columbia, and anchored again off Coffin Rock, near which he found a depth of twenty-five fathoms, which is the deepest water within the capes and bar of the entrance. This place is sixty miles from the mouth of the river, and eight miles above the confluence of the Cowlitz. The shores here are composed of trap and a conglomerate, the last of which is the same rock as that which occurs below. The Coffin Rock, which is not more than sixty feet in diameter, and twelve feet above the water appears to have been exclusively reserved for the burial of the chiefs. Dr. Holmes procured here some fine specimens of flat-head skulls. Captain Wilkes anchored the same evening off the Cowlitz; and early the next morning, proceeded up the Cowlitz in his gig, in order to finish the survey of that stream, and examine the strata of coal said to exist there. After entering it, it was with difficulty that he recognised the river, for there is greater difference than even in the Columbia, between its high and low floods. After passing up the Cowlitz several miles, he encountered rapids, through which it was necessary to drag the boat by a line. He found, after great exertion and fatigue, that he could not ascend beyond thirteen miles; for it had become so shallow that the boat would not float, and they had not strength enough to force her over the wide bars of gravel and sand, that had apparently accumulated

during the previous spring. Some specimens of lignite were found embedded in the alluvial banks, and taking observations for time, he turned back. Feeling anxious to reach the brig at an early hour, he ventured to shoot one of the rapids. In doing this they all had a narrow escape; and particularly two of the boat's crew, who were in great danger of their lives. They fortunately escaped, but with considerable damage to the boat and a few bruises, the whole of which was the work of an instant. The Cowlitz is not navigable, except at high water during the spring and fall; and even then it is difficult to ascend, on account of the strength of its current. Having reached the influence of the tide below Oak Point, all fears of the ague and fever vanished.

On the 26th they reached Katalamet Point, the lower end of Puget Island. The brig passed down the usual channel on the south side, while Captain Wilkes surveyed the northern passage. The latter is about four miles in length. Puget Island affords no land fit for cultivation, and during the season of freshets is overflowed. It is fringed around its borders with cotton wood, willow, pine, and hazel, &c., but it may be considered valueless.

On the 29th of September they descended to the Pillar Rock, and on the 3rd of October passed through the Tongue Point channel. Before doing this, Captain Wilkes took the precaution to buoy it out, and then towed the vessel through at high water. This enabled him to lay down its tortuous course with accuracy, although he was aware that there is little probability of its remaining over the season without some material change. The new and direct channel discovered by them, leading up from Tongue Point, will, he thinks, supersede the necessity of using the old channel; and the new, from its direct course is more likely to be permanent; but he says the channels in this river will be always more or less subject to change, from the impediments the large trees drifting down cause, when they ground on the shoals.

The same evening they anchored about two miles above Astoria, and in order to lose no time, he proceeded there in his boat to make arrangements for getting off the stores, and embarking every thing previous to his departure from Oregon.

The Porpoise anchored at Astoria, and all were engaged in expediting the embarkation of stores on board of both vessels: the officers were detained temporarily to the Oregon, whilst the necessary observations for the chronometers and magnetisms were made. It now became important that the two larger vessels should be got to sea as early as possible. They, in consequence proceeded on the 2nd to Baker's Bay, whilst the boats were still employed under Lieutenant De Haven in taking soundings. Acting-master Knox and Midshipman Reynolds were ordered to the Porpoise and Oregon for the purpose of piloting them to sea when the earliest opportunity should serve. In Baker's Bay they found that the company's schooner, the Cadborough, had been waiting there three weeks for an opportunity to get over the bar.

As the Peacock's launch could not be taken away, although he at one time

had intended to send her along the coast to San Francisco, Captain Wilkes found that the weather and advanced state of the season would have rendered such a voyage dangerous. He consequently provided her with every essential to fit her to be used as a pilot boat at the mouth of the river, or, for the relief of vessels in distress; and he wrote to Dr. M'Laughlin, placing the launch at his disposal, under the supervision of the company's officers for the above purposes. On the 5th the prospect of passing the bar was favourable, and at 2 h. 30 m. P. M. the company's bark Columbia—which had been lying off and on for the week, having just returned from the northern posts—entered, and proceeded up the river to Astoria. At 3 h. 30 m. the exploring vessels got under way, and in an hour afterwards passed the bar in safety.

The Cadborough followed and went to sea also. Her master had strong misgivings as to undertaking the risk at so late an hour both of the day and tide. The vessels of the Hudson Bay Company never attempt to pass either in or out unless the opportunity is such as will warrant the master in making the attempt. They consider that there is sufficient risk at the best of times, and are unwilling to increase it. Captain Wilkes says, "the Columbia is impracticable for two-thirds of the year. This arises from the fact that it can never be entered at night, and in the day only at particular times of the tide and direction of the wind. Unlike all known ports, it requires both the tide and wind to be contrary to insure any degree of safety."

Having succeeded in getting the brigs beyond the risk of detention, he gave them orders to await his return, and he then went on board the tender to pass again into the river, for the purpose of completing all that remained of the survey.

The survey was completed on the morning of the 10th of October, when Captain Wilkes returned to Baker's Bay, and being determined to lose no time, he made the attempt to pass the bar: though he succeeded in doing so, he says, "I am satisfied it was at great risk; for, as I have been told is frequently the case, the wind failed us just at the most critical point, and rendered it doubtful if we could pass. Our situation was dangerous, and a vessel of any other class must have been wrecked. For at least twenty minutes I was in doubt whether we could effect our object; but by the use of sweeps we accomplished it, principally through the exertions of the extra men belonging to the surveying boats, whom we had on board.

"The Oregon was the only vessel in sight, and when I boarded her, I learned that they had not seen the Porpoise for three days. The next day she hove in sight, and the arrangements were soon completed. I now supplied the tender with water and other requisites, and gave Mr. Knox orders to take a few more soundings on the outside of the bar, and then proceeded along the coast as far as latitude 42 deg. north, and to examine it, and the mouth of the Umpqua.

"On the night of the 15th we parted company with the Oregon, and did not

see her again until she arrived at San Francisco. We coasted along to the southward in the Porpoise. The land is high and mountainous, and may be seen at a great distance. Soundings of dark sand are obtained in from thirty to forty fathoms water, about fifteen or twenty miles from the land.

"No ports exist along any part of it that are accessible to any class of vessels, even those of but very small draught of water, and the impediment that the constant and heavy surf offers along the whole coast to a landing in boats, makes this part of our territory comparatively valueless in a commercial point of view. Along a great part of it is an iron-bound shore, rising precipitately from the water. Anchorage in a few places may be had, but only in fair weather and during the fine season."

Vancouver's and Queen Charlotte's Islands.—With the exception of the descriptions of Nootka by Cook, and the surveys of Vancouver, we have little that gives us a satisfactory knowledge of the islands which extend along the north-western coast of America, south of the Russian settlements.

Captain Wilkes, during the exploring expedition which he commanded, surveyed but a very limited portion of Vancouver's Island, and he had little to remark in addition to the description by Vancouver, which, he says, applies correctly at this day.

Vancouver Island extends from south-east to north-west, between latitudes 48 deg. 15 min. north, and 51 deg. 30 min. north; and longitudes 122 deg. 30 min. and 128 deg. 15 min. west. Cook, in approaching, on the 29th of March, the island in latitude 49 deg. 29 min. north, says, "The country is full of high mountains, whose summits were covered with snow, but the valleys between them and the sea-coast, high as well as low, were covered to a considerable extent with high straight trees that formed a beautiful prospect, as if one vast forest." The natives of Nootka, who traded freely with him in furs and skins, were the most expert thieves ever met with. The natives of Vancouver's Island, and especially those of Nootka Sound, were also noted, by Vancouver, for their thievish disposition. They appear to have been, and to have continued, a ferocious, cruel race. The attack upon, and massacre of the crew of the American ship Tonquin, constitutes one of the most shocking atrocities which has occurred in the history of America.

There is much timber growing on Vancouver's Island and the lands south of 48 deg. 8 min., which border the numerous inlets within it; and some parts of this large island are described as well adapted for agriculture. But its mountainous and rocky districts occupy a great part of its area. Its harbours, its woods, its limited cultivable soils, its wild animals, and its fisheries, with those of the adjacent coast, and with Queen Charlotte's Island, and several other islands, and the coast northward, may, at some distant period, afford sufficient advantages for occupation and settlement. But as far as all the descriptions which we have of the islands and regions of the north-west coast of America extend, north of about latitude 48 deg. 30 min., their value for agricultural purposes must be considered as utterly insignificant.

RUSSIAN-AMERICA.

ON the coast of North America, along Behring's Straits, between 67 deg. and 64 deg. 10 min. of latitude, under the parallels of Lapland and Iceland, there have long been established a great number of posts or rather huts frequented by the Siberian hunters. These, from north to south, were principally at Kigiltach, Leglelachtok, Tuguten, Netschich, Tchinegriun, Chibalech, Topar, Pintepata Agulichan, Chavani, and Nugran, near Cape Rodney (Cap du Parent).

The extensive region, considered under Russian dominion, is a country of islands, ice, rocks, barrens, pine, and beech forests. Its boundaries are supposed to be Dixon's Inlet, in about latitude 54 deg. north; and, including several islands, and a narrow strip along the coast to Mount St. Elias, in latitude 60 deg. 20 min., and thence separated from British America by a line running due north, along the meridian of longitude 141 deg. west to the Arctic Sea, comprising the whole region from that meridian west to Behring's Straits, and including the peninsula of Alaska and the Aleutian Islands. The following remarks were drawn up in 1837, by an officer of the Hudson Bay Company, and in most respects apply to the present time, with the exception that the post of Bodega, on the coast of Mexico, has been sold to a Swiss adventurer, and that several Swiss and Germans have settled there.

"The Russian Fur Company's principal establishment on the north-west coast is named 'New Archangel,' formerly Sitka, and situated in Norfolk Sound, in north latitude 57 min., west longitude 132 deg. 20 min. It is maintained as a regular military establishment, garrisoned by about 300 officers and men, with good natural defences, mounting sixteen short eighteen, and twelve long nine-pounders, and is the head-quarters of the governor, Captain Kaupryanooff, of the Russian army. The Russians have other establishments on the coast and islands to the northward of New Archangel, and one fort, Ross, in the Bay of Bodega, or Romanzoff, on the coast of California, situated near the entrance of the Bay of San Francisco, in latitude 37 deg. 25 min.; in all, ten establishments on the north-west coast of America. They have, moreover, twelve vessels from 100 up to 400 tons' burden, armed with ten guns each of different calibre. All the officers and most of the people employed in their sea and land service belong to the Russian army and navy; receive pay from the Russian government, and their services, while attached to the Russian Fur Company, entitle them to the advantages of promotion, pension, &c., in like manner as if employed on active service in the army and navy. They have, moreover, attached to these establishments a number of Indians of the Kodiak tribe, who are usually employed in hunting or fishing, but are under no fixed engagement, and are looked upon and considered as slaves. Their annual returns in fur are in value from 80,000*l.* to 100,000*l.*

ABORIGINAL TRIBES OF OREGON.

THE aborigines of Oregon are, from all accounts, decreasing in numbers, and degenerating in character. They were, from the time they were first visited by Europeans, notorious thieves, and generally cruel and treacherous. Filthiness and laziness are characteristic of most of the Oregon tribes, though some are far more barbarous than others. They have adopted scarcely any of the virtues of European civilisation, nor have they imitated even their vices, with the exception of the ready indulgence of drinking ardent spirits, and the use of tobacco. The former was unknown to their ancestors, and although the use of tobacco was known among the southern and eastern aborigines of America, it is doubtful if it was known to the nations west of the Rocky Mountains. The different tribes have their several rites, and superstitions, and barbarities. Nor does it appear that the Christian missionaries have been successful in their labours. Some tribes are far more daring and intrepid than others. The most degraded are those who live chiefly on roots, and known by the name of diggers. The boldest are those inhabiting Vancouver's and Queen Charlotte's Islands; and those southward about the opposite inlets, near the point where Sir Alexander Mackenzie, after crossing America from Canada, arrived at the waters of the Pacific. Captain Wilkes gives, in his narrative, a very interesting account of the condition and number of the native inhabitants of Oregon in Texas. He says—

"I satisfied myself that the accounts given of the depopulation of this country are not exaggerated; for places were pointed out to me where dwelt whole tribes that have been entirely swept off; and during the time of the greatest mortality, the shores of the river were strewed with the dead and dying. This disease, ague and fever, occurs, it is said, semi-annually, and in the case of foreigners it is more mild at each succeeding attack."

"Owing to the above causes, the population is much less than I expected to find it. I made every exertion to obtain correct information, and believe that at the time of our visit, the following was very nearly the truth, viz.:—

Vancouver and Washington Island	5000
From latitude 50° to 54° north on the main	2000
Fenn's Cove, Whidby's Island, including the main land (Sachet tribe)	650
Hood's Canal (Suquamish and Toando tribes)	500
Birch Bay	800
Fraser's River	500
Clalams, at Port Discovery, New Dungeness	350
Port Townsend	70
Classet Tribe, Cape Flattery, and Point Grenville	1250
Nisqually	200
Chickees and Puget Sound	700

Port Orchard	.	.	.	.	.	150
Cowlitz	.	.	.	.	.	830
Okonagan	.	.	.	.	.	300
Colville and Spokane	.	.	.	.	.	450
Kilamukes	.	.	.	.	.	400
Chinooks	.	.	.	.	.	209
Clatsops	.	.	.	.	.	220
Cascades	.	.	.	.	.	150
Pillar Rock, Oak Point, and Columbia River	.	.	.	.	.	300
Willamette Fall and Valley	.	.	.	.	.	275
Dalles	.	.	.	.	.	250
De Chute's and John Day's River	.	.	.	.	.	300
Yakima	.	.	.	.	.	100
Wallawalla	.	.	.	.	.	1100
Blackfeet, that dwell principally on the west side of the Rocky Mountains	.	.	.	.	.	1000
Umpquas	.	.	.	.	.	400
Rogues' River	.	.	.	.	.	500
Klamets	.	.	.	.	.	300
Shaste	.	.	.	.	.	500
Callapuyas	.	.	.	.	.	600
Total	.	.	.	.	.	19,354

"The whole territory may therefore be considered as containing about 20,000 Indians; and this, from a careful revision of the data obtained by myself and some of the officers, I am satisfied is rather above than under the truth. The whites and half-breds were between 700 and 800; 150 were Americans. The number of the latter has, however, increased very much since the year 1840, as many emigrants have crossed the mountains. The decrease of the red race is no doubt equivalent to the increase by immigration."

OVERLAND EXPEDITIONS FROM THE UNITED STATES TO OREGON AND CALIFORNIA.

We have followed the United States exploring parties under Captain Wilkes, in North and South Oregon and California. To complete, or follow up, the explorations made in Oregon and California, two expeditions were fitted out, the first in 1843, the second in 1844: both under the command of Captain Fremont of the United States Topographical Engineers.

The narrative, or journal of those expeditions, is remarkably well written, and abounds in the most interesting information relative to the climate, soil, geology, and natural history generally, of the countries traversed by Captain Fremont.

The object of the first expedition was to explore the regions between the Missouri River and the SOUTH PASS of the Rocky Mountains, and the territories

also drained by the Kansas and Great Platte Rivers. He departed from the city of Washington on the 2nd of May, 1842, and arrived at St. Louis on the 22nd, from whence Captain Fremont and his party proceeded about 400 miles to Chouteau's trading place, ten miles above the mouth of the Kansas in latitude 39 deg. 6 min. north, longitude 94 deg. 26 min. west, 700 feet above the level of the sea. This exploring party consisted of Captain Fremont, as commander, Mr. Preuss, a German, as assistant surveyor, Maxwell a hunter, Carson, long noted as a bold trapper in the Rocky Mountains, two youths as adventurers, and about twenty men, habituated to prairie, mountain, river, and forest life,—chiefly Canadian voyageurs and half-breeds, who had been brought up in the service of the fur companies: all were well armed and mounted on horses. They started with eight waggons, drawn by mules carrying the luggage,—some oxen, driven along to be killed for provisions, and a few spare horses.

"From the belt of wood," says Captain Fremont, "which borders the Kansas, in which we had passed several good-looking Indian farms, we suddenly emerged on the prairies, which received us at the outset with some of their striking characteristics; for here and there rode an Indian, and but a few miles distant heavy clouds of smoke were rolling before the fire. In about ten miles we reached the Santa Fé road, along which we continued for a short time, and encamped early on a small stream; having travelled about eleven miles. During our journey, it was the customary practice to encamp an hour or two before sunset, when the carts were disposed so as to form a sort of barricade around a circle some eighty yards in diameter. The tents were pitched, and the horses hobbled and turned loose to graze; and but a few minutes elapsed before the cooks of the messes, of which there were four, were busily engaged in preparing the evening meal. At nightfall, the horses, mules, and oxen, were driven in and picketed—that is, secured by a halter, of which one end was tied to a small steel-shod picket, and driven into the ground; the halter being twenty or thirty feet long, which enabled them to obtain a little food during the night. When we had reached a part of the country where such a precaution became necessary, the carts being regularly arranged for defending the camp, guard was mounted at eight o'clock, consisting of three men, who were relieved every two hours; the morning watch being horse guard for the day. At daybreak, the camp was roused, the animals turned loose to graze, and breakfast generally over between six and seven o'clock, when we resumed our march, making regularly a halt at noon for one or two hours. Such was usually the order of the day, except when accident of country forced a variation; which, however, happened but rarely. We travelled next day along the Santa Fé road, which we left in the afternoon, and encamped late in the evening on a small creek called by the Indians Mishmagwi."

After a journey of extraordinary fatigue, attended frequently with severe privation, Captain Fremont arrived at the ascent to the southern pass of the

Rocky Mountains. The narrative of this journey is remarkably interesting, The perils of fording and ascending rivers,—the hostility of the Indian tribes, the disturbed state of the country west of the American settlements,—the buffalo herds and hunts,—the sufferings of the emigrants on their way to Oregon,—the lives of the trappers,—the account of the trading-posts, the arrangements for travelling, the exhausted state of their horses, the manner in which fresh horses and guides were procured, and the accounts of the regions travelled over, are clearly described.

On the 15th of July the party reached Fort Laramie. On the left bank of the river, about twenty-five feet above the water.

Captain Fremont says,—

"This post belongs to the American Fur Company, and intrusted to the care of two clerks and about sixteen men. As usual, these had found wives among the Indian squaws: and with the usual accompaniment of children the place had a populous appearance." The object of the establishment is trade with the neighbouring tribes, who, in the course of the year, generally make two or three visits to the fort. In addition to this, traders, with a small outfit, are constantly kept amongst them. The articles of trade consist on the one side, almost entirely of buffalo robes; and, on the other, of blankets, calicoes, guns, powder, and lead, with such cheap ornaments as glass beads, looking-glasses, rings, vermillion for painting, tobacco, and principally, and in spite of the prohibition, of spirits, brought into the country in the form of alcohol, and diluted with water before sold. The American Fur Company, throughout the country, are strenuously opposed to the introduction of spirituous liquors. "But," says Captain Fremont, "when a keg of alcohol will purchase from an Indian every thing he possesses—his furs, his lodge, his horses, and even his wife and children—and when any vagabond, who has money enough to purchase a mule, can go into a village and trade against them successfully, without withdrawing entirely from the trade it is impossible for them to discontinue its use. In their opposition to this practice, the company is sustained, not only by their obligation to the laws of the country and the welfare of the Indians, but clearly also on grounds of policy; for, with heavy and expensive outfits, they contend at manifestly great disadvantage against the numerous independent and unlicensed traders, who enter the country from various avenues, from the United States and from Mexico, having no other stock in trade than some kegs of liquor, which they sell at the modest price of thirty-six dollars per gallon. The difference between the regular trader and the *courreurs des bois* (as the French call the itinerant or peddling traders), with respect to the sale of spirits, is here, as it always has been, fixed and permanent, and growing out of the nature of their trade. The regular trader looks a-head, and has an interest in the preservation of the Indians, and in the regular pursuit of their business, and the preservation of their arms, horses, and every thing necessary to their future and perma-

nent success in hunting : the *courteur des bois* has no permanent interest, and gets what he can, and for what he can, from every Indian he meets, even at the risk of disabling him from doing any thing more at hunting.*

"To keep open the communications," says Captain Fremont, "with Oregon territory, a show of military force in this country is absolutely necessary; and a combination of advantages renders the neighbourhood of Fort Laramie the most suitable place, on the line of the Platte, for the establishment of a military post. It is connected with the mouth of the Platte and the Upper Missouri by excellent roads, which are in frequent use, and would not in any way interfere with the range of the buffalo, on which the neighbouring Indians mainly depend for support. It would render any posts on the Lower Platte unnecessary, the ordinary communication between it and the Missouri being sufficient to control the intermediate Indians. It would operate effectually to prevent any such coalitions as are now formed among the Gros Ventres, Sioux, Cheyennes, and other Indians, and would keep the Oregon road through the valley of the Sweet Water and the South Pass of the mountains constantly open. It lies at the foot of a broken and mountainous region, along which, by the establishment of small posts in the neighbourhood of St. Vrain's Fort, on the South Fork of the Platte, and Bent's Fort, on the Arkansas, a line of communication would be formed, by good *waggon* roads, with our southern military posts, which would entirely command the mountain passes, hold some of the most troublesome tribes in check, and protect

* Captain Fremont learned the following particulars of the condition of the country. "For several years the Cheyennes and Sioux had gradually become more and more hostile to the whites, and in the latter part of August, 1841, had had rather a severe engagement with a party of sixty men under the command of Mr. Frapp, of St. Louis. The Indians lost eight or ten warriors, and the whites had their leader and four men killed. This fight took place on the waters of Snake River; and it was this party, on their return under Mr. Bridger, which had spread so much alarm among my people. In the course of the spring two other small parties had been cut off by the Sioux—one on their return from the Crow nation, and the other among the Black Hills." The emigrants to Oregon and Mr. Bridger's party met here a few days before Captain Fremont's arrival. "Divisions and misunderstandings had grown up among them; they were already somewhat disheartened by the fatigue of their long and wearisome journey, and the feet of their cattle had become so much worn as to be scarcely able to travel. In this situation they were not likely to find encouragement in the hostile attitude of the Indians, and the new and unexpected difficulties which sprang up before them. They were told that the country was entirely swept of grass, and that few or no buffalo were to be found on their line of route; and, with their weakened animals, it would be impossible for them to transport their heavy waggons over the mountains. Under these circumstances, they disposed of their waggons and cattle at the forts; selling them at the prices they had paid in the States, and taking in exchange coffee and sugar at one dollar a pound, and miserable worn-out horses, which died before they reached the mountains. The superintendent at Laramie purchased thirty, and at the lower fort eighty head of fine cattle, some of them of the Durham breed. Mr. Fitzpatrick, whose name and high reputation are familiar to all who interest themselves in the history of this country, had reached Laramie in company with Mr. Bridger; and the emigrants were fortunate enough to obtain his services to guide them as far as the British post of Fort Hall, about 250 miles beyond the south pass of the mountains. They had started for this post on the 4th of July, and immediately after their departure, a war party of 350 *braves* set out upon their trail. As their principal chief or partisan had lost some relations in the recent fight, and had sworn to kill the first whites on his path, it was supposed that their intention was to attack the party, should a favourable opportunity offer; or if foiled in their principal object, content themselves with stealing horses and cutting off stragglers."

and facilitate our intercourse with the neighbouring Spanish settlements. The valleys of the rivers on which they would be situated are fertile; the country, which supports immense herds of buffalo, is admirably adapted to grazing; and herds of cattle might be maintained by the posts, or obtained from the Spanish country, which already supplies a portion of their provisions to the trading posts mentioned above."—*Narrative*.

To the south, along the route on the 22nd, the main chain of the Black or Laramie Hills rises precipitously upward in masses along the summits. An inverted cone of black cloud (*cumulus*) rested during all the forenoon on the lofty peak of Laramie Mountain, estimated to be 6500 feet above the sea. Eastward of the meridian of Fort Laramie, the principal objects which strike the eye of a traveller are the absence of timber, and the immense expanse of prairie, covered with the verdure of rich grasses, and highly adapted for pasturage. Wherever they are not disturbed by man, large herds of buffalo give animation to this country. Westward of Laramie River, the region becomes sandy, and apparently sterile.

"The prominent characteristic is the extraordinary abundance of *artemisia*, which grows everywhere—on the hills, and over the river bottoms, in tough, twisted, wiry clumps; and, wherever the beaten track was left, they rendered the progress of the carts rough and slow. As the country increased in elevation on our advance to the west, they increased in size; and the whole air is strongly impregnated and saturated with the odour of camphor and spirits of turpentine, which are combined in this plant." "This climate," says Captain Fremont, "has been found very favourable to the restoration of health, particularly in cases of consumption; and possibly the respiration of air so highly impregnated with aromatic plants may have some influence. The present year had been one of unparalleled drought, and throughout the country the water had been almost dried up. The greater number of the springs, and many of the streams, which made halting-places for the *voyageurs* had been dried up. Every where the soil looked parched and burnt; the scanty yellow grass crisped under the foot, and even the hardiest plants were destroyed by want of moisture. I think it necessary to mention this fact, because, to the rapid evaporation in such an elevated region, nearly 5000 feet above the sea, almost wholly unprotected by timber, should be attributed much of the sterile appearance of the country, in the destruction of vegetation, and the numerous saline efflorescences which covered the ground."

Before leaving the last crossing of the Platte, Captain Fremont says, "I will endeavour to give some description of the nature of the road from Laramie to this point. The nature of the soil may be inferred from its geological formation. The limestone at the eastern limit of this section is succeeded by limestone without fossils, a great variety of sandstone, consisting principally of red sandstone and fine conglomerates. The red sandstone is argillaceous, with compact white gypsum

or alabaster, very beautiful. The other sandstones are grey, yellow, and ferruginous, sometimes very coarse. The apparent sterility of the country must, therefore, be sought for in other causes than the nature of the soil. The face of the country cannot, with propriety, be called hilly. It is a succession of long ridges, made by the numerous streams which come down from the neighbouring mountain range. The ridges have an undulating surface, with some such appearance as the ocean presents in an ordinary breeze.

"The road which is now generally followed through this region is therefore a very good one, without any difficult ascents to overcome. The principal obstructions are near the river, where the transient waters of heavy rains have made deep ravines with steep banks, which renders frequent circuits necessary. It will be remembered that waggons pass this road only once or twice a year, which is by no means sufficient to break down the stubborn roots of the innumerable artemisia bushes. A partial absence of these is often the only indication of the track; and the roughness produced by their roots in many places gives the road the character of one newly opened in a wooded country. This is usually considered the worst part of the road east of the mountains; and, as it passes through an open prairie region, may be much improved, so as to avoid the greater part of the inequalities it now presents.

"From the mouth of the Kansas to the Green River Valley, west of the Rocky Mountains, there is no such thing as a mountain road on the line of communication."

Before starting on the most difficult and perilous part of the journey, and which he was earnestly dissuaded, from the hostile state of the country, not to attempt, Captain Fremont says, "Having resolved to disencumber ourselves immediately of every thing not absolutely necessary to our future operations, I turned directly in toward the river, and encamped on the left bank, a little above the place where our council had been held, and where a thick grove of willows offered a suitable spot for the object I had in view.

"The carts having been discharged the covers and wheels were taken off, and, with the frames, carried into some low places among the willows, and concealed in the dense foliage in such a manner that the glitter of the iron-work might not attract the observation of some straggling Indian. In the sand, which had been blown up into waves among the willows, a large hole was then dug, ten feet square and six deep. In the mean time all our effects had been spread out upon the ground, and whatever was designed to be carried along with us separated and laid aside, and the remaining part carried to the hole and carefully covered up. As much as possible all traces of our proceedings were obliterated, and it wanted but a rain to render our *cache* safe beyond discovery. All the men were now set at work to arrange the pack-saddles and make up the packs." The best thermometer was accidentally broken at this place, which was

named *Cache* camp, longitude 106 deg. 38 min. 26 sec., latitude 42 deg. 50 min. 53 sec."

All the arrangements having been completed, the expedition left the encampment early on the morning of the 29th of July. In a few miles they reached the Red Buttes, a famous landmark, whose geological composition is red sandstone, limestone, and calcareous sandstone and pudding-stone. Here the river cuts its way through a ridge; on the eastern side of which are the lofty escarpments of red argillaceous sandstone, called the Red Buttes. On the banks were willow and cherry-trees. The cherries were not yet ripe, but in the thickets were numerous fresh tracks of the grizzly bear, which is very fond of this fruit.

Before leaving the course of the Platte, they saw numerous herds of mountain sheep, and frequently heard the rattling of stones rolling rapidly down the steep hills. This was the first place at which they had killed any of these sheep or goats (for they are called by each name). Their flesh is much esteemed by the hunters; and the horns are often three feet long and seventeen inches in circumference at the base, weighing eleven pounds. The use of these horns seems to be to protect the animal's head in pitching down precipices to avoid the wolves—their only safety being in places where they cannot be followed. "The bones are very strong and solid, the marrow occupying but a very small portion of the bone in the leg, about the thickness of a rye-straw. The hair is short, resembling the winter colour of our common deer, which it nearly approaches in size and appearance. Except in the horns, it has no resemblance whatever to the goat."

On leaving the course of the Platte, to cross over to the Sweet Water, they wound their way to the summit of the hills, of which the peaks are about 800 feet above the Platte, bare and rocky.

On the 1st of August, the hunters went a-head, as buffalo appeared tolerably abundant, and the party moved about seven miles up the valley, and encamped one mile below Rock Independence. This is an isolated granite rock, about 650 yards long, and forty in height. "Everywhere, within six or eight feet of the ground, where the surface is sufficiently smooth, and in some places sixty or eighty feet above, the rock is inscribed with the names of travellers. Many a name famous in the history of this country, and some well known to science, are to be found mixed among those of the traders and travellers for pleasure and curiosity, and of missionaries among the savages. Some of these have been washed away by the rain, but the greater number are still very legible. The position of this rock is in longitude 107 deg. 56 min., latitude 42 deg. 29 min. 36 sec. We remained at our camp of August 1st until noon of the next day, occupied in drying meat."

Five miles above Rock Independence they reached a place called the Devil's Gate, where the Sweet Water cuts through a granite ridge. "The length of the passage is about 300 yards, and the width thirty-five yards. The walls of rock are

vertical, and about 400 feet in height; and the stream in the gash is almost entirely choked up by masses which have fallen from above. In the wall, on the right bank, is a dike of trap-rock, cutting through a fine-grained grey granite. Near the point of this ridge crop out some strata of the valley formation, consisting of a greyish micaceous sandstone, and fine-grained conglomerate and marl. The country for several miles up this valley, is exceedingly picturesque. On either side of the valley, which is four or five miles broad, the mountains rise to the height of 1200 and 1500 or 2000 feet. On the south side the range appears to be timbered, and during the night of the 3rd of August, was luminous with fires —probably the work of the Indians, who had just passed through the valley. On the north, broken and granite masses rise abruptly from the green sward of the river, terminating in a line of broken summits. Except in the crevices of the rock, and here and there on a ledge or bench of the mountain, where a few hardy pines have clustered together, these are perfectly bare and destitute of vegetation.

" Among these masses, where there are sometimes isolated hills and ridges, green valleys open in upon the river, which sweeps the base of these mountains for thirty-six miles. Everywhere its deep verdure and profusion of beautiful flowers is in pleasing contrast with the sterile grandeur of the rock and the barrenness of the sandy plain, which, from the right bank of the river, sweeps up to the mountain range that forms its southern boundary. The great evaporation on the sandy soil of this elevated plain, and the saline efflorescences which whiten the ground, and shine like lakes reflecting the sun, make a soil wholly unfit for cultivation." Travelling along the upland part of the valley, which is overgrown with *artemisia*, scattered about on the plain there were small isolated hills. One of these, about fifty feet high, consisted of white clay and marl, in nearly horizontal strata. Several bands of buffalo made their appearance on the 3rd, with herds of antelope; and a grizzly bear was seen scrambling up among the rocks. On passing over a slight rise near the river, we caught the first view of the Wind River mountains, appearing, at this distance of about seventy miles, to be a low and dark mountainous ridge.

On the 9th of August, they approached the summits. Captain Fremont says, "The weather still cloudy, with occasional rain. Our general course was west, as I had determined to cross the dividing ridge by a bridle-path among the broken country more immediately at the foot of the mountains, and return by the waggon road, two and a half miles to the south of the point where the trail crosses.

" About six miles from our encampment brought us to the summit. The ascent had been so gradual, that we were obliged to watch very closely to find the place at which we had reached the culminating point. This was between two low hills, rising on either hand fifty or sixty feet. When I looked back at them, from the foot of the immediate slope on the western plain, their summits appeared to be about 120 feet above. From the impression on my mind at this time, and

subsequently on our return, I should compare the elevation which we surmounted immediately at the pass, to the ascent of the Capitol hill from the avenue at Washington. It is difficult for me to fix positively the breadth of this pass. From the broken ground where it commences, at the foot of the Wind River chain, the view to the south-east is over a champaign country, broken, at the distance of nineteen miles, by the Table Rock; which, with the other isolated hills in its vicinity, seems to stand on a comparative plain. This I judged to be its termination, the ridge recovering its rugged character with the Table Rock. It will be seen that it in no manner resembles the places to which the term is commonly applied—nothing of the gorge-like character and winding ascents of the Alleghany passes in America; nothing of the Great St. Bernard and Simplon passes in Europe. Approaching it from the mouth of the Sweet Water, a sandy plain, 120 miles long, conducts by a gradual and regular ascent to the summit, about 7000 feet above the sea; and the traveller, without being reminded of any change by toilsome ascents, suddenly finds himself on the waters which flow to the Pacific Ocean. By the route we had travelled, the distance from Fort Laramie is 320 miles, or 950 from the mouth of the Kansas.

"Continuing our march, we reached, in eight miles from the Pass, the Little Sandy, one of the tributaries of the Colorado, or Green River of the Gulf of California. The weather had grown fine during the morning, and we remained here the rest of the day to dry our baggage and take some astronomical observations. The stream was about forty feet wide, and two or three deep, with clear water and a full swift current, over a sandy bed. It was timbered with a growth of low bushy and dense willows, among which were little verdant spots, which gave our animals fine grass, and where I found a number of interesting plants. Among the neighbouring hills I noticed fragments of granite containing magnetic iron. Longitude of the camp was 109 deg. 37 min. 59 sec., and latitude 42 deg. 27 min. 34 sec."

The face of the country traversed next day was of a brown sand of granite materials, the *detritus* of the neighbouring mountains. Strata of the milky quartz cropped out, and blocks of granite were scattered about, containing magnetic iron: In the afternoon we had a severe storm of hail, and encamped at sunset on the first New Fork. Within the space of a few miles, the Wind Mountains supply a number of tributaries to Green River, which are called the New Forks. Near our camp were two remarkable isolated hills, one of them sufficiently large to merit the name of mountain. They are called the Two Buttes, and will serve to identify the place of our encampment, which the observations of the evening placed in longitude 109 deg. 58 min. 11 sec., and latitude 42 deg. 42 min. 46 sec."

The air next morning, August the 10th, was clear and pure, and the morning extremely cold, but beautiful. "A lofty snow peak of the mountain is glittering in the first rays of the sun, which has not yet reached us. The long mountain wall to the east, rising 2000 feet abruptly from the plain, behind which we see

the peaks, is still dark, and cuts clear against the glowing sky." In pursuance of instructions, Captain Fremont, was to connect the explorations which he had conducted in 1842, with the surveys of Commander Wilkes on the coast of the Pacific Ocean, so as to give a connected survey of the interior of the American continent, proceeded to the Great West early in the spring of 1843, and arrived, on the 17th of May, at the little town of Kansas, on the Missouri frontier, near the junction of the Kansas River with the Missouri River. His party consisted principally of Creole and Canadian French and Americans, amounting in all to thirty-nine men.

The party was armed generally with Hall's carbines, which, with a brass 12lb. howitzer, had been furnished from the United States arsenal at St. Louis. Three men were especially detailed for the management of this piece, under the charge of Louis Zindel, a native of Germany, who had been nineteen years a non-commissioned officer of artillery in the Prussian army. The camp equipage and provisions were transported in twelve carts, drawn each by two mules; and a light covered waggon, mounted on good springs, had been provided for the safer carriage of the instruments. These were—one refracting telescope, one reflecting circle, two sextants, two pocket chronometers, one siphon barometer, one cistern barometer, six thermometers, and a number of small compasses.

To make the exploration as useful as possible, he, in conformity to general instructions, varied the route to the Rocky Mountains from that followed in the year 1842; and, instead of traversing the valley of the Great Plate River to the South Pass, in north latitude 42 deg., to proceed up the valley of the Kansas River, to the head of the Arkansas, and to some pass in the Rocky Mountains, if any could be found, near the sources of that river.

The object of this deviation from the former route, was to open a new road to Oregon and California, in a climate more genial, and to obtain a better knowledge of an important river, and the country it drained; while the great object of the expedition would find its point of commencement at the termination of the former, which was at that great gate in the ridge of the Rocky Mountains called the South Pass, and on the lofty peak of the mountain which overlooks it, deemed the highest peak in the ridge, and from the opposite sides of which four great rivers take their rise, and flow to the Pacific or to the Mississippi.

After a tedious fatiguing journey, with jaded horses, the expedition halted on the 9th of August, in latitude, by observation, 42 deg. 20 min. 06 sec., immediately at the foot of the southern side of the range which walls in the Sweet Water Valley, at the head of a small tributary to that river.

They encamped on the banks of the Sweet Water River, about twenty miles above the Devil's Gate, in longitude 107 deg. 50 min. 07 sec.; elevation above

the sea 6040 feet ; and distance from St. Vrain's Fort, by the road we had just travelled, 315 miles.

Here passes the route to Oregon ; and the broad smooth highway, where the numerous heavy waggons of the emigrants had beaten and crushed the artemisia.

On the morning of the 13th, they left their encampment on the waters which flow towards the rising sun, and travelled along the upland, towards the dividing ridge which separates the Atlantic from the Pacific waters, and crossed it by a road some miles further south than the route followed on their return in 1842. "We crossed," says Captain Fremont, "very near the table mountain, at the southern extremity of the South Pass, which is near twenty miles in width, and already traversed by several different roads. Selecting, as well as I could, in the scarcely distinguishable ascent, what might be considered the dividing ridge in this remarkable depression in the mountain, I took a barometrical observation, which gave 7490 feet for the elevation above the Gulf of Mexico (in the report of 1842, I estimated the elevation of this pass at about 7000 feet). Its importance, as the great gate through which commerce and travelling may hereafter pass between the valley of the Mississippi and the North Pacific, justifies a precise notice of its locality and distance from leading points, in addition to this statement of its elevation. As stated in the report of 1842, its latitude at the point where we crossed is 42 deg. 24 min. 32 sec; its longitude 109 deg. 26 min. its distance from the mouth of the Kansas, by the common travelling route, 962 miles ; from the mouth of the Great Platte, along the valley of that river, according to our survey of 1842, 882 miles ; and the distance from St. Louis about 400 miles more by the Kansas, and about 700 by the Great Platte route ; these additions being steamboat conveyance in both instances. From this pass to the mouth of the Oregon is about 1400 miles by the common travelling route ; so that, under a general point of view, it may be assumed to be about half way between the Mississippi and the Pacific Ocean, on the common travelling route. Following a hollow of slight and easy descent, in which was very soon formed a little tributary to the Gulf of California (for the waters which flow west from the South Pass go to this gulf), we made our usual halt four miles from the pass, in latitude, by observation, 42 deg. 19 min. 53 sec. Entering here the valley of Green River—the great Colorado of the West—and inclining very much to the southward along the streams which form the Sandy River, the road led for several days over dry and level uninteresting plains, to which a low, scrubby growth of artemisia gave a uniform dull grayish colour ; and on the evening of the 15th we encamped in the Mexican territory, on the left bank of Green River, sixty-nine miles from the South Pass, in longitude 110 deg. 05 min. 05 sec., and latitude 41 deg. 53 min. 54 sec., distant 1031 miles from the mouth of the Kansas.

This is the emigrant road to Oregon, which bears much to the southward, to avoid the mountains about the western heads of Green River—the *Rio Verde* of the Spaniards.

“September 18.—We emerged on the plains of the Columbia, in sight of the famous ‘Three Buttes,’ a well-known landmark in the country, distant about forty-five miles. The French word *butte*, which so often occurs in this narrative, is retained from the familiar language of the country, and identifies the objects to which it refers. It is naturalised in the regions of the Rocky Mountains; and, even if desirable to render it in English, I know of no word which would be its precise equivalent. It is applied to the detached hills and ridges which rise abruptly, and reach too high to be called hills or ridges, and not high enough to be called mountains. *Knob*, as applied in the Western States, is their most descriptive term in English. *Cerro* is the Spanish term; but no translation, or paraphrasis, would preserve the identity of these picturesque landmarks, familiar to the traveller, and often seen at a great distance. Covered, as far as could be seen, with artemisia, the dark and ugly appearance of this plain obtained for it the name of the ‘Sage Desert;’ and we were agreeably surprised, on reaching the Portneuf River, to see a beautiful green valley with scattered timber spread out beneath us, on which, about four miles distant, were glistening the white walls of Fort Hall. We had a night of snow and rain, and the thermometer at sunrise was at 34 deg.; the morning was dark, with a steady rain, and there was still snow on the ground, with abundance on the neighbouring hills and mountains. Ice made tolerably thick during the night; next morning the weather cleared up very bright, with a temperature at sunrise of 29 deg.; the thermometer, at sunset, 48 deg.”

The early approach of winter, and the difficulty of supporting a large party, determined Captain Fremont to send back a number of the men, who had become satisfied that they were not fitted for the laborious service and frequent privation to which they were necessarily exposed, and which there was reason to believe would become more severe in the further extension of the voyage.

FORT HALL.—Except that there is a greater quantity of wood used in its construction, Fort Hall very much resembles the trading posts east of the Rocky Mountains, described by Captain Fremont, and would be another excellent post of relief for the emigration. It is in the low, rich bottom of the valley, apparently twenty miles long, formed by the confluence of Portneuf River with Lewis’s Fork of the Columbia, which it enters about nine miles below the fort. Allowing fifty miles for the road from the *Beer Springs* of Bear River to Fort Hall, its distance along the *travelled* road from the town of Westport, on the frontier of Missouri, by way of Fort Laramie and the great South Pass, is 1323 miles.

"Beyond this place, on the line of road along the *barren* valley of the Upper Columbia, there does not occur, for a distance of nearly 300 miles to the westward, a fertile spot of ground sufficiently large to produce the necessary quantity of grain, or pasturage enough to allow even a temporary repose to the emigrants. On their recent passage, they had been able to obtain, at very high prices, and in insufficient quantity, only such assistance as could be afforded by a small and remote trading post; which, in the supply of its own wants, had necessarily drawn around it some of the resources of civilisation, but which obtained nearly all its supplies from Vancouver, by a difficult water-carriage of 250 miles up the Columbia River, and a land-carriage by pack horses of 600 miles. An American military post, sufficiently strong (and all others which may be established on the line to Oregon) would naturally form the *nucleus* of a settlement, at which supplies and repose would be obtained by the emigrant or trading caravans, which may hereafter traverse these elevated and, in many places, desolate and inhospitable regions."

Analysis of Soil in the River Bottom near Fort Hall.

Silica	68·55
Alumina	7·45
Carbonate of lime	8·51
Carbonate of magnesia	5·09
Oxide of iron	1·40
Organic vegetable matter	4·74
Water and loss	4·26
<hr/>	
	100·00

By observation longitude 112 deg. 29 min. 54 sec., latitude 43 deg. 01 min. 30 sec., elevation above the sea 4500 feet.

Captain Fremont resumed the journey down the valley on the 22nd of September, the weather being very cold, and the rain coming in hard gusts with the wind.

The river bottoms he found narrow and swampy, with frequent sloughs; after crossing the Pannack, the road continued along the uplands, covered with artemisia bushes, and encamped under a grove of willows, at the upper end of a group of islands about half a mile above the *American Falls* of Snake River.

"The river here enters between low mural banks, which consist of a fine vesicular trap rock, the intermediate portions being compact and crystalline. Gradually becoming higher in its downward course, these banks of scoriated volcanic rock form with occasional interruptions, its characteristic feature along the whole line to the Dalles of the Lower Columbia, resembling a chasm which had been rent through the country, and which the river had afterwards taken for its bed. The immediate valley of the river is a high plain covered with black rocks and artemisias. In the south is a bordering range of mountains, which, although not very high, are

broken and covered with snow; and at a great distance to the north is seen the high, snowy line of the Salmon River Mountains, in front of which stand out prominently in the plain the three isolated rugged-looking little mountains, commonly known as the *Three Buttes*. Between the river and the distant Salmon River range, the plain is represented as so entirely broken up and rent into chasms as to be impracticable for a man even on foot. By measurement, the river above is 870 feet wide, immediately contracted at the fall in the form of a lock, by jutting piles of scoriaceous basalt, over which the foaming river must present a grand appearance at the time of high water. At sunset the temperature was 54 deg. By observation, latitude 42 deg. 47 min. 05 sec., and the longitude 112 deg. 40 min. 13 sec.

"Thermometer at sunrise 47 deg., September 25th. The road led along the river, which is full of rapids and small falls. Grass is very scanty; and along the rugged banks are scattered cedars, with an abundance of rocks and sage. Travelled fourteen miles; encamped in the afternoon near the river, on a rocky creek, the bed of which was occupied with boulders of large size. For the last three or four miles the right bank of the river has a palisaded appearance. The thermometer at evening was at 55 deg., the sky almost overcast, and the barometer indicated an elevation of 4400 feet."

On the 8th of October, they travelled along a ridge on the right, having scattered pines on the upper parts; and then continuing along the river bottom, encamped in the evening on the right bank of the river, a mile above the mouth, and early the next morning arrived at Fort Boisée. This is a dwelling-house on the right bank of Snake River, about a mile below the mouth of Rivière Boisée.

During the day there were considerable numbers of miserable half-naked Indians around the fort, who had arrived from the neighbouring mountains. During the summer the only subsistence of these people is derived from the salmon, of which they are not provident enough to lay up a sufficient store for the winter, during which many of them die from absolute starvation.

While the summer weather and the salmon lasted, they lived scattered along the different streams where the fish were to be found; and as soon as the winter-snows began to fall, little smokes would be seen rising among the mountains, where they would be found in miserable groups, starving during the winter, and sometimes, according to report, "reduced to the horror of cannibalism—the strong, of course, preying on the weak. Certain it is, they are driven to any extremity for food, and eat every insect and every creeping thing, however loathsome and repulsive; snails, lizards, ants, all are devoured with the readiness and greediness of mere animals."

In common with all the other Indians they had encountered since reaching the Pacific waters, these people use the Shoshonee or Snake language.

By observations, the longitude of the fort is 116 deg. 47 min. 00 sec., latitude 43 deg. 49 min. 22 sec., and elevation above the sea 2100 feet.

"We were now, October 13th," says Captain Fremont, "about to leave the valley of the great southern branch of the Columbia River, to which the absence of timber, and the scarcity of water, give the appearance of a desert, to enter a mountainous region where the soil is good, and in which the face of the country is covered with nutritious grasses and dense forest-land, embracing many varieties of trees peculiar to the country, and on which the timber exhibits a luxuriance of growth unknown to the eastern part of the continent and to Europe. This mountainous region connects itself in the southward and westward with the elevated country belonging to the Cascade or California range, and forms the eastern limit of the fertile and timbered lands along the desert and mountainous region included within the Great Basin," a term which Captain Fremont applies, "to the intermediate region between the Rocky Mountains and the next range, containing many lakes, with their own system of rivers and creeks (of which the Great Salt Lake is the principal), and which have no connexion with the ocean or the great rivers which flow into it. This Great Basin is yet to be adequately explored. And here, on quitting the banks of a sterile river, to enter on arable mountains, the remark may be made, that, on this western slope of the American continent, the usual order or distribution of good and bad soil is often reversed; the river and creek bottoms being often sterile, and darkened with the gloomy and barren artemisia; while the mountain is often fertile, and covered with rich grass, pleasant to the eye, and good for flocks and herds."

Leaving the Snake River, which, from this point, is said to flow through cañons, amidst rocky and impracticable mountains, where there is no possibility of travelling with animals, the party ascended a long and somewhat steep hill; and, crossing the dividing ridge, came down into the valley of *Burnt* River. The average breadth of the stream here is thirty feet; it is well fringed with the usual small timber, and the soil in the bottoms is good, with tolerable grass.

They now travelled through a mountainous country; the stream running rather in a ravine than a valley, and the road bad, and dangerous for single waggons, frequently crossing the stream where the water is sometimes deep. The animals were greatly fatigued in climbing up and descending a succession of steep ascents; and the common trail, which leads along the mountain side at places where the river strikes the base, is difficult even on horseback. The appearance of the country was green and refreshing after the journey down the parched valley of Snake River. The mountains were covered with good bunch grass (*festuca*); the water of the streams was cold and pure; their bottoms were wooded with various kinds of trees; and huge lofty and picturesque precipices arose where the river cuts through the mountains. He says,

"For several weeks the weather in the daytime has been very beautiful, clear, and warm; but the nights, in comparison, very cold. During the night of the 16th of October there was ice a quarter of an inch thick in the lodge; and at daylight the thermometer was at 16 deg., and the same at sunrise; the weather being calm and clear. The annual vegetation now is nearly gone, almost all the plants being out of bloom."

"Travelling across the affluents to Powder River, the country became constantly more pleasant and interesting. The soil appeared to be very deep, black, and extremely good, as well among the hollows of the hills on the elevated flats, as on the river bottoms; the vegetation being such as is usually found in good ground."

The *Grand Rond* is a level basin, or mountain valley, "covered with good grass, on a rich soil, abundantly watered, and surrounded by high and well-timbered mountains, and its name descriptive of its form—the great circle—is about twenty miles in diameter, and may, in time, form a superb county." Captain Fremont remarked, in descending, some white spots glistening on the plain, which he found to be the bed of a dry salt lake, or marsh, firm and bare, and covered thickly with a fine white powder, containing a large quantity of carbonate of soda (33 in 100 parts).

"The old grass had been lately burned off from the surrounding hills, and, wherever the fire had passed, there was a recent growth of strong, green, and vigorous grass; and the soil of the level prairie, which sweeps directly up to the foot of the surrounding mountains, appears to be very rich, producing flax spontaneously and luxuriantly in various places.†

Next day (18th of October) they travelled in a nearly north direction across the valley; and reached one of the principal streams, where the emigrants appeared to have held some consultation as to their further route.

Captain Fremont then passed out of the *Grand Rond* along a creek, which, for a short distance, runs in a kind of rocky chasm. "Crossing a low point, which was a little rocky, the trail conducted into the open valley of the stream—a handsome place for farms, the soil being rich and black.

"October 20.—The pines, as we proceeded downwards were more dense,

* Analysis of Powder River Soil:—

Silica.....	72.30
Alumina	6.25
Carbonate of lime	6.86
Carbonate of magnesia	4.62
Oxide of iron	1.20
Organic matter	4.50
Water and loss	4.27
	100.00

+ Analysis of the Grand Rond Soil:—

Silica.....	70.81
Alumina	10.97
Lime and magnesia.....	1.38
Oxide of iron	2.21
Vegetable matter, partly decomposed.....	8.16
Water and loss.....	5.46
Phosphate of lime.....	1.01
	100.00

and still retained their magnificent size. The larches cluster together in masses on the sides of the mountains, and their yellow foliage contrasts handsomely with the green of the balsam and other pines. After a few miles we ceased to see any pines, and the timber consisted of several varieties of spruce, larch, and balsam pine, which have a regularly conical figure. These trees appeared from sixty to nearly 200 feet in height; the usual circumference being ten to twelve feet, and in the pines sometimes twenty-one feet."

On the 25th of October, the party arrived at a rocky streamlet of the Walla-walla river. Crossing the stream they travelled over a hilly country with good bunch grass; the river bottom, which generally contains the best soil in other countries, being here a sterile level of rocks and pebbles. They had found the soil in the Blue Mountains to be of excellent quality, and it appeared also to be good here among the lower hills. Reaching a little eminence, over which the trail passed, they had an extensive view along the course of the river, which was divided and spread over its bottom in a net-work of water, receiving several other tributaries from the mountains. There was a band of several hundred horses grazing on the hills about two miles a-head; and as they advanced on the road they met other bands, which Indians were driving out to pasture also on the hills. The hills and mountains were rich in grass, the bottoms barren and sterile.

They passed on the way several unfinished houses, and some cleared patches where corn and potatoes were cultivated, and arrived at the Walla-walla missionary establishment, which then consisted, of one *adobe house*—*i. e.* built of unburnt bricks, as in Mexico.

On the next morning the party arrived at the Nez Percé fort, a few hundred yards above the junction of the Walla-walla with the Columbia River. Here they had the first view of this river, and found it "about 1200 yards wide, and presenting the appearance of a fine navigable stream." The post is on the bank of the Columbia, on a plain of bare sands, from which the air was literally filled with clouds of dust and sand, during one of the few days they remained here. Captain Fremont says "the appearance of the post and country was without interest, except that we here saw, for the first time, the great river on which the course of events for the last half century has been directing attention and conferring historical fame. The river, is, indeed, a noble object, and has here attained its full magnitude. About nine miles above, and in sight from the heights about the post, is the junction of the two great forks which constitute the main stream—that on which we had been travelling from Fort Hall, and known by the names of Lewis's Fork, Shoshonee, and Snake River, and the North Fork, which has retained the name of Columbia, as being the main stream. The union of two large streams, coming one from the south-east, and the other from the north-east, and meeting in what may be treated as the geographical centre of the Oregon valley, thence doubling the volume of water to the ocean, while

opening two great lines of communication with the interior continent, constitutes a feature in the map of the country which cannot be overlooked ; and it was probably in reference to this junction of waters, and these lines of communication, that this post was established. They are important lines, and from the structure of the country must for ever remain so—one of them leading to the South Pass, and to the valley of the Mississippi ; the other to the pass at the head of the Athabasca River, and to the countries drained by the waters of the Hudson Bay. The British fur companies now use both lines ; the Americans, in their emigration to Oregon, have begun to follow the one which leads towards the United States. Bateaux from tide-water ascend to the junction, and thence high up the North Fork or Columbia. Land conveyance only is used upon the line of Lewis's Fork. To the emigrants to Oregon, the Nez Percé is a point of interest, as being, to those who choose it, the termination of their overland journey. The broad expanse of the river here invites them to embark on its bosom ; and the lofty trees of the forest furnish the means of doing so.

"From the South Pass to this place is about 1000 miles ; and as it is about the same distance from that pass to the Missouri River, at the mouth of the Kansas, it may be assumed that 2000 miles is the *necessary* land travel in crossing from the United States to the Pacific Ocean on this line. From the mouth of the Great Platte it would be about one hundred miles less.

"By a meridional altitude of the sun, the only observation that the weather permitted us to obtain, the mouth of the Walla-walla River is in latitude 46 deg. 03 min. 46 sec. ; and, by the road we had travelled, 612 miles from Fort Hall. At the time of our arrival, a considerable body of the emigrants, under the direction of Mr. Applegate, a man of considerable resolution and energy, had nearly completed the building of a number of *Mackinaw* boats, in which they proposed to continue their further voyage down the Columbia. I had seen, in descending the Walla-walla River, a fine drove of several hundred cattle, which they had exchanged for Californian cattle, to be received at Vancouver, and which are considered a very inferior breed. The other portion of the emigration had preferred to complete their journey by land along the banks of the Columbia, taking their stock and waggons with them.

"Having reinforced our animals with eight fresh horses, hired from the post, and increased our stock of provisions with dried salmon, potatoes, and a little beef, we resumed our journey down the left bank of the Columbia, being guided on our road by an intelligent Indian boy, whom I had engaged to accompany us as far as the Dalles."

Captain Fremont with his party descended to Fort Vancouver, where he found the Hudson Bay Company's ship ready to sail for England, being detained only in waiting the arrival of the express bateaux, which descend the Columbia and its north Fork with the overland mail from Canada and Hudson Bay, which had

been delayed beyond their usual time. He waited upon Dr. M'Laughlin, who received him with courtesy and hospitality, and was immediately supplied by him with the necessary stores and provisions to refit his party in the intended journey through Oregon to California and back to the United States; and also with a Mackinaw boat and canoes, manned with Canadian and Iroquois voyageurs and Indians, for their transportation to the Dalles of the Columbia, and a letter of recommendation and credit for any officers of the Hudson Bay Company into whose posts they might be driven by unexpected misfortune. The supplies were paid for, but every hospitable attention was extended to Captain Fremont.

There were many American emigrants at the fort; others had crossed the river into their *land of promise*—the Willamette Valley. Others were daily arriving; and all of them had been furnished with shelter, so far as it could be afforded by the buildings connected with the establishment. Necessary clothing and provisions (the latter to be afterwards returned in kind from the produce of their labour) were also furnished. This friendly assistance was of very great value to the emigrants, whose families were otherwise exposed to much suffering from the winter rains, which had now commenced, at the same time that they were in want of all the common necessities of life. Those who had taken a water conveyance at the Nez Percé Fort continued to arrive safely. The party which had passed over the Cascade Mountains were reported to have lost a number of their animals; and those who had driven their stock down the Columbia had brought them safely in, and found for them a ready and very profitable market, and were then proposing to return to the States in spring for another supply.

The object of Captain Fremont's instructions had been, he says, "fulfilled, in having connected his reconnoissance with the surveys of Captain Wilkes."

On the 25th of November, he departed on a perilous and arduous expedition up the Fall River and over the mountain country to California.

"It was a serious enterprise at the commencement of winter, to undertake the traverse of such a region, and with a party consisting only of twenty-five persons, and they of many nations—American, French, German, Canadian, Indian, and coloured—and most of them young, several being under twenty-one years of age. All knew that a strange country was to be explored, and dangers and hardships to be encountered; but no one blenched at the prospect. On the contrary, courage, and confidence animated the whole party. Cheerfulness, readiness, subordination, prompt obedience, characterised all; nor did any extremity of peril and privation, to which we were afterwards exposed, ever belie, or derogate from, the fine spirit of this brave and generous commencement. The course of the narrative will show at what point, and for what reasons, we were prevented from the complete execution of this plan, after having made considerable progress upon it, and how we were forced by desert plains and mountain ranges, and deep snows, far to the south, and near to the Pacific Ocean, and along the western base of the Sierra Nevada."

Their route lay south, up the valley of a tributary of the Columbia, called Fall River, and along the eastern base to Tlamath Lake. They travelled over a region in parts traversed by ravines, in others spreading into prairies, but generally rugged and high, and partly covered with pines, cedars, and other trees.

With the cold severe, the water in many places frozen, the snow on the heights compelling the party to deviate from the last summer route, until the 10th of December, "when," Captain Fremont says, "the country began to improve; and about 11 o'clock we reached a spring of cold water on the edge of a savannah, or grassy meadow, which our guides informed us was an arm of the Tlamath Lake; and a few miles further we entered upon an extensive meadow, or lake of grass, surrounded by timbered mountains. This was the Tlamath Lake. It was a picturesque and beautiful spot, and rendered more attractive to us by the abundant and excellent grass which our animals, after travelling through pine forests, so much needed; but the broad sheet of water which constitutes a lake was not to be seen. Overlooking it, immediately west, were several snowy knobs, belonging to what we have considered a branch of the Cascade range. A low point covered with pines made out into the lake, which afforded us a good place for an encampment, and for the security of our horses, which were guarded in view on the open meadow.

"The character of courage and hostility attributed to the Indians of this quarter induced more than usual precaution; and seeing smokes rising from the middle of the lake (or savannah) and along the opposite shores, I directed the howitzer to be fired. It was the first time our guides had seen it discharged; and the bursting of a shell at a distance, which was something like the second fire of the gun, amazed and bewildered them with delight. It inspired them with triumphant feelings; but on the camps at a distance the effect was different, for the smokes in the lake and on the shores immediately disappeared.

"The point on which we were encamped forms, with the opposite eastern shore, a narrow neck, connecting the body of the lake with a deep cove or bay which receives the principal affluent stream, and over the greater part of which the water (or rather ice) was at this time dispersed in shallow pools. Among the grass and scattered over the prairie lake, appeared to be similar marshes. It is simply a shallow basin, which, for a short period at the time of melting snows, is covered with water from the neighbouring mountains; but this probably soon runs off, and leaves for the remainder of the year a green savannah, through the midst of which the River Tlamath, which flows to the ocean, winds its way to the outlet on the south-western side.

"That day," says Captain Fremont, "we rode out towards the village in the middle of the lake, which one of our guides had previously visited. It could not be directly approached, as a large part of the lake appeared a marsh, and there were sheets of ice among the grass on which our horses could not keep their footing. We therefore followed the guide for a considerable distance along the forest, and then turned off towards the village, a few large huts, on the tops of which

were collected the Indians. When we had arrived within half a mile of the village, two persons were seen advancing to meet us; and, to please the fancy of our guides, we ranged ourselves into a long line, riding abreast, while they galloped ahead to meet the strangers.

"They were the village chief and his wife, who, in excitement and alarm at the unusual event and appearance, had come out to meet their fate together. The chief was a very prepossessing Indian, with very handsome features, and a singularly soft and agreeable voice—so remarkable as to attract general notice.

"The huts were grouped together on the bank of the river, which, from being spread out in a shallow marsh at the upper end of the lake, was collected here into a single stream. They were large round huts, perhaps twenty feet in diameter, with rounded tops, on which was the door by which they descended into the interior. Within, they were supported by posts and beams.

"Almost like plants, these people seem to have adapted themselves to the soil, and to be growing on what the immediate locality afforded. Their only subsistence at this time appeared to be a small fish, great quantities of which that had been smoked and dried were suspended on strings about the lodge. Heaps of straw were lying around; and their residence, in the midst of grass and rushes, had taught them a peculiar skill in converting this material to useful purposes. Their shoes were made of straw or grass, which seemed well adapted for a snowy country; and the women wore on their head a closely-woven basket, which made a very good cap. Among other things were party-coloured mats about four feet square, which we purchased to lay on the snow under our blankets, and to use for table-cloths. Dogs, resembling wolves, were sitting on the tops of the huts. The language spoken by these Indians is different from that of the Shoshonee and Columbia River tribes; and otherwise than by signs they cannot understand each other. They made us comprehend that they were at war with the people who lived to the southward and to the eastward. The river on which they live enters the Cascade Mountains on the western side of the lake, and breaks through them by a passage impracticable for travellers; but over the mountains to the northward, are passes which present no other obstacle than the almost impenetrable forests. Unlike any Indians we had previously seen, these wore shells in their noses.

"By observation, the latitude of the camp was 42 deg. 56 min. 51 sec.; and the diameter of the lake, or marshy meadow, as has been intimated, about twenty miles. It is a picturesque and beautiful spot; and, under the hand of cultivation, might become a little paradise. Game is found in the forest; timbered and snowy mountains skirt it, and fertility characterises it. Situated near the heads of three rivers, and on the line of inland communication with California, and near to Indians noted for treachery, it will naturally, in the progress of the settlement of Oregon, become a point for military occupation and settlement.

After crossing this marshy lake in which were frozen ponds, they entered a

pine-forest, and traversed a broad mountain, for seven hours during a snow-storm, and on the 15th, crossed the upper stream of the Sacramento. On the 16th, the snow was about three feet deep, and the branches of the pines overlaid with snow. And they continued ascending until they reached open ground on the verge of a vertical and rocky mountain wall; beneath which lay a green valley and lake below. To the east not a tree was to be seen.

"We were now immediately on the verge of the forest land, in which we had been travelling so many days; and, looking forward to the east, scarce a tree was to be seen. Viewed from our elevation, the face of the country exhibited only rocks and grass, and presented a region in which the artemisia became the principal wood, furnishing to its scattered inhabitants fuel for their fires, building material for their huts, and shelter for the small game which ministers to their hunger and nakedness. Broadly marked by the boundary of the mountain wall, and immediately below us, were the *first waters* of that Great Interior Basin which has the Wahsatch and Bear River Mountains for its eastern, and the Sierra Nevada for its western rim; and the edge of which we had entered upwards of three months before, at the Great Salt Lake.

"When we began to think about descending, which here was impossible, we turned towards the north, travelling always along the rocky wall. We continued on for four or five miles, making ineffectual attempts at several places; and at length succeeded in getting down at one which was extremely difficult of descent. Night had closed in before the foremost reached the bottom, and it was dark before we all found ourselves together in the valley. There were three or four half-dead dry cedar-trees on the shore, and those who first arrived kindled bright fires to light on the others. One of the mules rolled over and over 200 or 300 feet into a ravine, but recovered himself, without any other injury than to his pack; and the howitzer was left midway on the mountain until morning. By observation, the latitude of this encampment is 42 deg. 57 min. 22 sec. We were now in a country where the scarcity of water and of grass makes travelling dangerous, and great caution was necessary. We continued next day on the trail along the narrow strip of land between the lake and the high rocky wall, from which we had looked down two days before. Almost every half mile we crossed a little spring, or stream of cold pure water; and the grass was certainly as fresh and green as in the early spring. From the white efflorescence along the shore of the lake, we were enabled to judge that the water was impure, like that of the lakes we subsequently found; but the mud prevented us from approaching it."

Passing over the marshy lake, and travelling for two days, they came suddenly in sight of another and much larger lake, which, along its eastern shore, was closely bordered by high black ridge which walled it in by a precipitous face. Throughout this region the face of the country was characterised by precipices of black volcanic rock, generally enclosing the valleys of streams, and fre-

quently terminating the hills. "Spread out over a length of twenty miles, the lake when we first came in view, presented a handsome sheet of water; and I gave to it the name of Lake Albert, in honour of the chief of the corps to which I belonged. The fresh-water stream we had followed emptied into the lake by a little fall. The miry ground in the neighbourhood of the lake did not allow us to examine the water conveniently, and being now on the borders of a desert country, we were moving cautiously. We were following an Indian trail which led along the steep rocky precipice; a black ridge along the western shore holding out no prospect whatever. The white efflorescences which lined the shore like a bank of snow, and the disagreeable odour which filled the air as soon as we came near, informed us too plainly that the water belonged to one of those fetid salt lakes which are common in this region."

On the 22nd of December, they left this forbidding lake. Impassable rocky ridges barred the progress to the eastward, and they travelled towards the south, over an extensive sage plain. Ahead, and a little to the left, a range of snowy mountains arose. On the summit of the ridge, snow was visible, and there being every indication of a stream at it, rode on until after dark, halted among the sage bushes on the open plain, without either grass or water. Two India-rubber bags had been filled with water in the morning, which afforded sufficient for the camp; and rain in the night formed pools, which relieved the thirst of the animals.

The party rested on Christmas-day, and the expedition then travelled south over a country interspersed with large and small basins, into which the mountain waters run down, forming small lakes; they present a perfect level, into which the mountain torrents run down abruptly. Between the basins the dividing ridges are not usually high; and it is probable that, in the seasons of high floods many of these basins are in communication. On either side, the mountains, though not very high, appear to be rocky and sterile. Latitude of the encampment 42 deg. north.

They continued next day over a broad pass; snow about a foot deep; remarkably large cedars; a horse stolen in the night by the Indians. As they discovered and travelled along lower grounds, foggy weather prevailed; the country travelled over was rugged, or marshy and muddy, with traces of sheep and antelopes.

On the 6th of January, they entered a valley, and crossing the bed of another lake, over mud and sand, they reached hot springs and a grassy plat. Captain Fremont says—"the basin of the largest one has a circumference of several hundred feet; but there is at one extremity a circular space of about fifteen feet in diameter, entirely occupied by the boiling water. It boils up at irregular intervals, and with much noise. The water is clear, and the spring deep; a pole, about sixteen feet long, was easily immersed in the centre; but we had no means of forming a good idea of the depth. It was surrounded on the margin with a border of green grass, and near the shore the temperature of the water was 206 deg. We had no means of ascertaining that of the centre, where the heat was greatest; but, by

dispersing the water with a pole, the temperature at the margin was increased to 208 deg., and in the centre it was doubtless higher. Latitude of the hot springs, 40 deg. 39 min. 46 sec. north.

"Our situation now required caution. Including those which gave out from the injured condition of their feet, and those stolen by Indians, we had lost, since leaving the Dalles of the Columbia, fifteen animals; and of those, nine had been left in the last few days.

"Many of the men looked badly, and some this evening were giving out."

On the 10th of January the expedition travelled onwards in a southern direction through the basin along the ridge. On a large trail there is never any doubt of finding suitable places for encampments.

Passing a defile between the mountains they descended rapidly for about 2000 feet: when a lake about twenty miles broad opened before them like the ocean. One of the high neighbouring peaks was ascended to obtain a better view. The waves of the lake beneath were curling in the breeze, and from their dark green colour it would appear that the water was very deep. The mountains seemed to enclose it in all parts; but the western end communicated with the line of basins which were passed to the north; and on the opposite side its shores swept a ridge of the snowy mountains of the great Sierra. This lake appears to have been a new discovery, except to the Indians.

On the next day herds of mountain-sheep were seen, and the party encamped on a little stream at the mouth of the defile, about a mile from the margin of the lake. The shore was rocky; with a beach resembling that of the sea. On some large granite boulders scattered about the shore, there was a coating of a calcareous substance, in some places a few inches, and in others a foot in thickness. The hills were of primitive rock; the latter covered with this substance.

This place appeared to be a favourite Indian camping place.

On the 13th of January they followed a broad Indian trail along the shore of the lake to southward. After travelling a short distance, the water swept the foot of the precipitous mountains, the peaks were about 3000 feet above the lake. The trail wound along the base of these precipices, against which the water dashed below, by a way nearly impracticable for them to bring along the howitzer. During a greater part of the morning, the lake was nearly hidden by a snow-storm, and the waves broke on the narrow beach in a long line of foaming surf, five or six feet high.

They saw several flocks of sheep, but did not succeed in killing any. Ducks were riding on the waves, and several large fish were seen. The mountain sides were crusted with calcareous cement. There were chenopodiaceous and other shrubs along the beach, and, at the foot of the rocks, an abundance of *ephedra occidentalis*. Towards evening, the snow began to fall heavily, and the country had a wintry appearance.

On the following morning the snow was rapidly melting under a warm sun. The delay occasioned in bringing up the gun, prevented the party from travelling more than nine miles, when they encamped on the shore, opposite a remarkable rock in the lake. It rose, according to estimate, 600 feet above the water, and, from the point viewed presented a pretty exact outline of the great pyramid of Cheops. Like other rocks along the shore, it seemed to be encrusted with calcareous cement. This suggested a name, and it was called Pyramid Lake.

The elevation of this lake above the sea is 4890 feet, nearly 700 feet higher than the Great Salt Lake, from which it lies nearly west, distant about eight degrees of longitude. This is the nearest lake to the western confine, and the Great Salt Lake the nearest to the eastern boundary of the Great Basin which lies between the base of the Rocky Mountains and the Sierra Nevada.

Captain Fremont observes, in speaking of the river flowing into this lake—"Groves of large cotton-wood, which we could see at the mouth of the river, indicated that it was a stream of considerable size: and, at all events, we had the pleasure to know that now we were in a country where human beings could live. Accompanied by an Indian, who appeared at the confine, we resumed our road, passing on the way several caves in the rock, where there were baskets and seeds, but the people had disappeared. We saw also horse-tracks along the shore.

"Reaching the groves, we found the *inlet* of a large fresh-water stream, and all at once were satisfied that it was neither Mary's River nor the waters of the Sacramento, but that we had discovered a large interior lake, which the Indians informed us had no outlet. It is about thirty-five miles long, and, by the mark of the water-line along the shores, the spring level is about twelve feet above its present waters. The chief commenced speaking in a loud voice as we approached; and parties of Indians armed with bows and arrows issued from the thickets. We selected a strong place for our encampment—a grassy bottom, nearly enclosed by the river, and furnished with abundant firewood. The village, a collection of straw huts, was a few hundred yards higher up." The Indians brought them plenty of large salmon-trout. They were of extraordinary size, generally from two to four feet in length and of delicious flavour. Mr. Walker, who passed among some lakes lying more to the eastward, says this fish is common to the streams of the inland lakes, and constitute the chief subsistence of these people. Latitude of encampment, 39 deg. 51 min. 13 sec., by observation.

On the 26th of January they continued the journey along this stream, which they called Salmon-trout River. It was timbered with large cotton-woods, and the waters were clear and pure. The mountains of the great Sierra, which rose on the right, were covered with snow; below, the temperature was mild and pleasant.

The country was oftentimes tolerably level. Indian smokes arose in all directions, and are made from one camp to another when the country is alarmed. The horses and mules nearly worn out. They continued for several days tra-

velling to the south, to the upper waters of the stream, followed from the Pyramid Lake.

On the 28th of January the party travelled through the pass, after a hard day's journey of twelve miles, and encamped on a high point where the snow had been blown off, and the exposed grass afforded a scanty pasture for the horses. Snow, and the broken country made the travelling difficult, and they were often compelled to make large circuits, and ascend the highest and most exposed ridges, in order to avoid snow, which in other places was banked up to a great depth.

During the day a few Indians were seen circling around on snow shoes, and skimming along like birds, but they could not bring them within speaking distance. They would not allow one to approach, but, breaking into a laugh skinned off over the snow, seeming to have no idea of the power of fire-arms.

The journey, however, for several days, was fatiguing and dreary. Snow and ice, elevated ridges, from 6000 to 7000 feet high, and deep ravines were crossed, meeting occasionally with some wretched natives. The mules were one by one falling off. A dog was killed and eaten.

"The mountains here consisted wholly of a white micaceous granite. The day was perfectly clear, and, while the sun was in the sky, warm and pleasant. By observation, our latitude was 38 deg. 42 min. 26 sec. ; and elevation, by the boiling point, 7400 feet."

On the 6th February the party were engaged chiefly in opening a road through the snow, and on the morning of the following day, says Captain Fremont,

"All our energies were now directed to getting our animals across the snow; and it was supposed that, after all the baggage had been drawn with the sleighs over the trail we had made, it would be sufficiently hard to bear our animals.

On the night of February 14th, Captain Fremont ascended the highest peak to the right, from which he had a view of a mountain lake, about fifteen miles in length, and so entirely surrounded by mountains that he could not discover an outlet. "Snow could be distinguished on the higher parts of the coast mountains; eastward, as far as the eye could extend, it ranged over a *terrible* mass of broken snowy mountains. The rock composing the summit consists of a dry coarse, dark, volcanic conglomerate; the lower parts appeared to be of a slaty structure.

"February 20.—After enduring almost incredible hardships we encamped with the animals, and all the *materiel* of the camp, on the summit of the Pass in the dividing ridge, 1000 miles, by our travelled road, from the Dalles of the Columbia. The temperature of boiling water gave for the elevation of the encampment 9338 feet above the sea, 2000 feet higher than the South Pass in the Rocky Mountains; and several peaks in view rose several thousand feet still higher. Thus, at the extremity of the continent, and near the coast, the phenome-

non was seen of a range of mountains still higher than the great Rocky Mountains. This extraordinary fact accounts for the Great Basin, and shows that there must be a system of small lakes and rivers here scattered over a flat country, and which the extended and lofty range of the Sierra Nevada prevents from escaping to the Pacific Ocean. Latitude 38 deg. 44 min.; longitude 120 deg. 28 min.

This Pass in the Sierra Nevada, which well deserves its name of Snowy Mountain, is eleven degrees west and about four degrees south of the South Pass.

Before them there were now the difficulties of deep fields of snow and a large intervening space of rough-looking mountains, through which they had yet to wind their way to the valley beneath. They started next morning long before daybreak, in order to pass the snow-fields before the sun melted the frozen crust. The scene at sunrise was unusually glorious and beautiful. "Immediately above the eastern mountains was repeated a cloud-formed mass of purple ranges, bordered with bright yellow gold; the peaks shot up into a narrow line of crimson cloud, above which the air was filled with a greenish orange; and over all was the singular beauty of the blue sky. Passing along a ridge which commanded a lake on our right, of which we began to discover an outlet through a chasm on the west, we passed over alternating open ground, and hard crusted snow-fields which supported the animals, and encamped on the ridge, after a journey of six miles. The grass was better than we had yet seen, and we were encamped in a clump of trees twenty or thirty feet high, resembling white pine. With the exception of these small clumps, the ridges were bare; and, where the snow found the support of the trees, the wind had blown it up into banks ten or fifteen feet high. It required much care to hunt out a practicable way, as the most open places frequently led to impassable banks."

February 24.—By an astronomical observation latitude 38 deg. 46 min. 58 sec.; longitude 120 deg. 34 min. 20 sec.

Green grass began to make its appearance. The character of the forest continued the same. The flood of the river was a roaring torrent, its fall very great; and descending with furious rapidity. Oaks appeared on the ridge, and soon became frequent; with unusually great quantities of mistletoe. Rushes began to make their appearance.

At one of these rivulets, some beautiful evergreen trees, resembling live oak, were forty to fifty feet high and two in diameter, with a tufted top; and a summer green of beautiful foliage. The singing birds cheered the woods, and the soft summer wind was whirling about the dry oak leaves. The party hurried onwards, "filled with excitement, to escape from the horrid region of inhospitable snow to the perpetual spring of the Sacramento." Along the road the rock there appeared a white granite, which seemed to constitute the upper part of the mountains on both the eastern and western slopes: between the central prevail volcanic rocks; a horse was killed at night for food.

The river flowed in a direct westerly course through a narrow valley, with a

very slight and narrow bottom land. The party travelled down twelve miles, and encamped at some old Indian huts: apparently a fishing-place on the river. The bottom was covered with deciduous trees, vines, and rushes.

The forest abounded with magnificent trees; some of the pines bearing large cones, were ten feet in diameter; cedars also abounded. One measured twenty-eight feet and a half in circumference, four feet from the ground. These trees were found on both sides of the Sierra, but most abundant on the west.

On the 26th of February they continued to follow the descending stream: the mountains on each side increasing in height, and shutting up the river between narrow precipices, along which they had great difficulty to get on with the horses.

"*March 1.*—Continued on over the uplands, crossing many small streams, and camped again on the river, having made six miles. Here we found the hill-side covered (although lightly) with fresh green grass; and from this time forward we found it always improving and abundant. There were some beautiful specimens of the chocolate-coloured shrub, which were a foot in diameter near the ground, and fifteen to twenty feet high. We are rapidly descending into the spring, and we are leaving our snowy region far behind; every thing is getting green; butterflies are swarming; numerous bugs are creeping out, wakened from their winter's sleep; and the forest flowers are coming into bloom. Among those which appeared most numerously to-day was *dodecatheon dentatum*."

The condition of the party may be judged, when some wandered away from the camp in a state of mental derangement, plunged into the torrents, or wandered into the forest, and Captain Fremont well remarks, "The times were severe when stout men lost their minds from extremity of suffering—when horses died—and when mules and horses, ready to die of starvation, were killed for food.

"*March 3.*—The daily journeys were necessarily short, but at every step the country improved in beauty; the pines were rapidly disappearing, and oaks became the principal trees of the forest. Among these, the prevailing tree was the ever-green oak (which, by way of distinction, we shall call the *live oak*); and with these occurred frequently a new species of oak bearing a long slender acorn, from an inch to an inch and a half in length, which was afterwards found to constitute a principal vegetable food of the inhabitants of this region.

"*March 6.*—We continued on our road through the same surpassingly beautiful country, entirely unequalled for the pasturage of stock by any thing we had ever seen. Our horses had now become so strong that they were able to carry us, and we travelled rapidly, over four miles an hour; four of us riding every alternate hour. Every few hundred yards we came upon a little band of deer; but we were too eager to reach the settlement, which we momentarily expected to discover, to halt for any other than a passing shot. In a few hours we reached a large fork, the northern branch of the river, and equal in size to that which we had descended. Together they formed a beautiful stream, sixty to one hundred yards wide; which at first,

ignorant of the nature of the country through which that river ran, we took to be the Sacramento.

From the upland we descended into broad groves on the river, consisting of the evergreen, and a new species of white oak with a large tufted top, and three to six feet in diameter. Among these was no brushwood, and the grassy surface gave to it the appearance of parks in an old settled country. Following the tracks of the horses and cattle in search of people we discovered a small village of Indians. Some of these had on shirts of civilised manufacture, but were otherwise naked, and we could understand nothing from them."

The party, after an acorn meal, hurried on down a valley gay with flowers, and the banks absolutely golden with the Californian poppy (*eschscholtzia crocea*). The grass was smooth and green, the groves open, the large oaks throwing a broad shade over sunny spots. They came to a neatly built *adobe* house with glass windows, but found only Indians. They then followed the river which swept in a large bend to the right; and as the hills diverged they entered a broad valley, and arrived at a large Indian village, where the people looked clean, and wore cotton shirts and various other articles of dress. One spoke a little indifferent Spanish; a well-dressed Indian then came up, and made salutations in good Spanish. He informed them that they were upon the *Rio de los Americanos* (the river of the Americans), and that it flowed into the Sacramento River about ten miles below. He was a *vaquero* (cow herd) in the service of Captain Suter, and the people of this *rancheria* worked for him. Soon after they came in sight of Captain Suter's fort: passing on the way the house of an American settler named Sinclair. They then forded the river, and met Captain Suter, who gave them a cordial reception, and were hospitably lodged in his fort.

After remaining until the 22nd of March at New Helvetia and its neighbourhood, Captain Fremont started on the homeward route to the United States. Having made a preparatory movement, he resumed his journey on the 24th of March, with an ample stock of provisions and a large cavalcade of animals, consisting of 130 horses and mules, and about thirty head of cattle, five of which were milch cows. Mr. Suter furnished them also with an Indian boy, who had been trained as a *vaquero*, and who would be serviceable in managing the cavalcade, great part of which were nearly as wild as buffalo. The direct course for the United States was east; but the Sierra forced them south, above 500 miles of travelling, to a pass at the head of the San Joaquin River. This pass, reported to be good, was discovered by Mr. Joseph Walker, a celebrated trapper.

The party travelled the next day about eighteen miles, and encamped on the *Rio de los Cosumnes*, a stream receiving its name from the Indians who live in its valley. The route was through a level country, admirably suited to cultivation, and covered with groves of oak-trees, principally the evergreen-oak, and a large oak in form like those of the white oak. The weather, which here, at this season,

can easily be changed from the summer heat of the valley to the frosty mornings and bright days nearer the mountains, continued delightful for travellers, but unfavourable to the agriculturists, whose crops of wheat began to wear a yellow tinge from want of rain.

On the 25th of March, they travelled for twenty-eight miles over the same delightful country as before, and halted in a beautiful bottom at the ford of the *Rio de los Muklelemnés*, receiving its name from another Indian tribe living on the river. "The bottoms on the stream are broad, rich, and extremely fertile; and the uplands are shaded with oak-groves. A showy *lupinus*, of extraordinary beauty, growing four to five feet in height, and covered with spikes, in bloom, adorned the banks of the river, and filled the air with a perfume."

On the 26th, they halted at the *Arroyo de las Calaveras*, a tributary to the San Joaquim—the previous two streams entering the bay between the San Joaquim and Sacramento Rivers. This place was beautiful, with open groves of oak, and a grassy sward beneath, with many plants in bloom. Near the river, and replacing the grass, were great quantities of *ammole* (soap plant), the leaves of which are used in California for making, among other things, mats for saddle-cloths. A vine with a small white flower (*melothria?*) called *la yerba buena*, and which, from its abundance, gives name to an island and town in the bay, was very frequent on the road—sometimes running on the ground or climbing the trees.

On the following day they travelled rapidly up the valley; making about five miles an hour. During the earlier part of the day the ride had been over a very level prairie, or rather a succession of long stretches of prairie, separated by lines and groves of oak-timber, growing along dry gulleys, which are filled with water in seasons of rain; and by the melting snows. Over much of this extent, the vegetation was spare; the surface showing the action of water, which, in the season of flood, the Joaquim spreads over the valley. About one o'clock they came again among innumerable flowers; and few miles further, fields of the beautiful blue-flowering *lupine*, which thrives in the neighbourhood of water, indicated that they were approaching a stream. They here found this beautiful shrub growing in thickets, some being twelve feet in height. Occasionally three or four plants were clustered together, forming a grand bouquet, about ninety feet in circumference, and ten feet high; the whole summit covered with flowers. They continued their road for about half a mile, through an open grove of live oaks, which, in form, were the most symmetrical and beautiful they had yet seen in this country. The ends of their branches rested on the ground, forming somewhat more than a half sphere of very full and regular figure, with leaves apparently smaller than usual. The Californian poppy, of a rich orange colour, was also abundant. Elk and several bands of antelope made their appearance.

The route was delightful, amidst green pastures, flowers and scattered groves,

and in the warm spring weather, the view of the rocky and snowy peaks among which they had lately endured fatigue, privation, and severe cold.

"Emerging from the timber," says Captain Fremont, "we came suddenly upon the *Stanislaus River*, where we hoped to find a ford, but the stream was flowing by, dark and deep, swollen by the mountain snows; its general breadth was about fifty yards. We travelled about five miles up the river, and encamped without being able to find a ford. Here we made a large *corá*, in order to be able to catch a sufficient number of our wild animals to relieve those previously packed."

The expedition travelled onwards, over a country in some parts rough, in others wooded, and in many parts barren, until the 13th of April, when they approached the mountains. They ascended by a trail for a few miles along the bed of a creek without water, and suddenly came to a stream running with a lively current, but losing itself almost immediately in the sand. In a similar manner the mountain-waters lose themselves in sand at the eastern foot of the Sierra, leaving only a parched desert and arid plains beyond. The stream enlarged as they ascended. A new species of pine, several kinds of oaks, and a variety of trees, became abundant, and the party found themselves again travelling among the old orchard-like places. Here they selected a delightful encampment in a handsome green oak hollow, where, among the open bolls of the trees, was an abundant sward of grass and pea-vines. In the evening a Christian Indian rode into the camp, well dressed, with long spurs and a *sombrero*, and speaking Spanish fluently: it was an unexpected apparition, and a strange and pleasant sight in this desolate gorge of a mountain—an Indian face, Spanish costume, jingling spurs, and horse equipped after the Spanish manner. He belonged to one of the Spanish missions to the south, distant two or three days' ride, and had obtained from the priests leave to spend a few days with his relations in the Sierra. He appeared familiarly acquainted with the country. The interior of the Great Basin, pursuing a direct course for the frontier, he represented as "an arid and barren desert that had repulsed all the attempts of the Indians to penetrate it." This information induced Captain Fremont to relinquish the plan which he had previously formed for crossing this dreaded region. Latitude of the camp, 35 deg. 17 min. 12 sec., and longitude 118 deg. 35 min. 03 sec.

The expedition then travelled onward towards the Sierra up a valley, enriched by a profusion of flowers, sycamore, oaks, cotton-wood, and willow, with other trees, and shrubby plants. The cotton-wood varied its foliage with white tufts. Gooseberries, nearly ripe, were very abundant on the mountain slopes. On passing the dividing grounds, which were not very easy to ascertain, the air was filled with perfume, as if they were entering a highly cultivated garden; and, instead of green, the pathway and the mountain sides were covered with fields of yellow flowers, which was the prevailing colour. The journey was in the midst of an

advanced spring, whose green and floral beauty offered a delightful contrast to the sandy valley they had just left. All the day snow was in sight on the butt of the mountain, which frowned down on the right as they rode along between green trees, and on flowers, with humming-birds and other feathered friends of the traveller enlivening the serene spring air.

"As we reached," says Captain Fremont, "the summit of this beautiful pass, and obtained a view into the eastern country, we saw at once that here was the place to take leave of all such pleasant scenes as those around us. The distant mountains were now bald rocks again; and below, the land had any colour but green. Taking into consideration the nature of the Sierra Nevada, we found this pass an excellent one for horses; and with a little labour, or perhaps with a more perfect examination of the localities, it might be made sufficiently practicable for waggons. Its latitude and longitude may be considered that of our last encampment, only a few miles distant. The elevation was not taken--our half-wild cavalcade making it too troublesome to halt before night, when once started.

"We here left the waters of the bay of San Francisco; though forced upon them contrary to my intentions, I cannot regret the necessity which occasioned the deviation. It made me well acquainted with the great range of the Sierra Nevada of the *Alta California*, and showed that this broad and elevated snowy ridge was a continuation of the Cascade Range of Oregon, between which and the ocean there is still another and a lower range, parallel to the former and to the coast, and which may be called the Coast Range. It also made me well acquainted with the basin of the San Francisco bay, and with the two pretty rivers and their valleys (the Sacramento and the San Joaquin), which are tributary to that bay; and cleared up some points in geography on which error had long prevailed. It had been constantly represented, as I have already stated, that the bay of San Francisco opened far into the interior, by some river coming down from the base of the Rocky Mountains, and upon which supposed stream the name of Rio Buenaventura had been bestowed. Our observations of the Sierra Nevada, in the long distance from the head of the Sacramento, to the head of the San Joaquin, and of the valley below it, which collects all the waters of the San Francisco bay, show that this neither is nor can be the case. No river from the interior does or can cross the Sierra Nevada--itself more lofty than the Rocky Mountains; and as to the Buenaventura, the mouth of which, seen on the coast, gave the idea and the name of the reputed great river, it is, in fact, a small stream of no consequence, not only below the Sierra Nevada, but actually below the Coast Range--taking its rise within half a degree of the ocean, running parallel to it for about two degrees, and then falling into the Pacific near Monterey. There is no opening from the bay of San Francisco into the interior of the continent. The two rivers which flow into it are comparatively

short, and not perpendicular to the coast, but lateral to it, and having their heads towards Oregon and Southern California. They open lines of communication north and south, and not eastwardly; and thus this want of interior communication from the San Francisco bay, now fully ascertained, gives great additional value to the *Columbia*, which stands alone as the only great river on the Pacific slope of our continent, which leads from the ocean to the Rocky Mountains, and opens a line of communication from the sea to the valley of the Mississippi.

They continued travelling over a mountainous country near, or along ridges, until the 25th of April, when "The country assumed the character of an elevated and mountainous desert; its general features being black, rocky ridges, bald, and destitute of timber, with sandy basins between. Where the sides of these ridges are washed by gulleys, the plains below are strewed with beds of large pebbles or rolled stones, destructive to our soft-footed animals, accustomed to the grassy plains of the Sacramento valley. Through these sandy basins sometimes struggled a scanty stream, or occurred a hole of water, which furnished camping grounds for travellers. Frequently in our journey across, snow was visible on the surrounding mountains; but their waters rarely reached the sandy plain below, where we toiled along, oppressed with thirst and a burning sun. But throughout this nakedness of sand and gravel were many beautiful plants and flowering shrubs, which occurred in many new species, and with greater variety than we had been accustomed to see in the most luxuriant prairie countries. This was a peculiarity of this desert; even where no grass would take root, the naked sand would bloom with some rich and rare flower, which found its appropriate home in the arid and barren spot."

The morning of the 11th of May was cloudy and cool, with a shower of rain—the first since their entering the desert, a period of twenty-seven days; and they now experienced the usual weather of the Rocky Mountains.

On the 12th of May they encamped on the summit of the ridge which forms the dividing chain between the waters of the *Rio Virgen*, which flows south to the Colorado, and those of Sevier River, flowing northwardly into the Great Basin. "We considered ourselves," says Captain Fremont, "as crossing the rim of the Great Basin; and, entering at this point, we found here an extensive mountain meadow, rich in bunch grass, and fresh with numerous springs of clear water, all refreshing and delightful to look upon. It was, in fact, that *las Vegas de Santa Clara*, which had been so long presented to us as the terminating point of the desert, and where the annual caravan from California to New Mexico halted and recruited for some weeks. It was a very suitable place to recover from the fatigue and exhaustion of a month's suffering in the hot and sterile desert. The meadow was about a mile wide, and some ten miles long, bordered by grassy hills and mountains—some of the latter rising 2000 feet, and white with snow down to the level of the *Vegas*.

Its elevation above the sea was 5280 feet; latitude, by observation, 37 deg. 28 min. 28 sec.; and its distance from where we first struck the Spanish trail about 400 miles. Counting from the time we reached the desert, and began to skirt, at our descent from Walker's Pass in the Sierra Nevada, we had travelled 550 miles, occupying twenty-seven days, in that inhospitable region. In passing before the great caravan, we had the advantage of finding more grass, but the disadvantage of finding also the marauding savages, who had gathered down upon the trail, waiting the approach of their prey. This greatly increased our labours, besides costing us the life of an excellent man. We had to move all day in a state of watch, and prepared for combat—scouts and flankers out, a front and rear division of our men, and baggage animals in the centre. At night, camp duty was severe. Those who had toiled all day had to guard, by turns, the camp and the horses all night. Frequently one-third of the whole party were on guard at once, and nothing but this vigilance saved us from attack. We were constantly dogged by bands, and even whole tribes of these marauders: and although Tabéau was killed, and our camp infested and insulted by some, while swarms of them remained on the hills and mountain sides, there was manifestly a consultation and calculation going on to decide the question of attacking us."

On the 25th of May, they came in sight of the Utah Lake; and, as they descended to the broad bottoms of the Spanish fork, three horsemen were seen galloping towards them who proved to be Utah Indians—scouts from a village which was encamped near the mouth of the river. They were armed with rifles, and their horses were in good condition.

On arriving at the Utah Lake, Captain Fremont remarks;—“We had completed an immense circuit of 12 deg. north and south, and 10 deg. east and west; and found ourselves, in May, 1844, on the same sheet of water which we had left in September, 1843. The Utah is the southern limb of the Great Salt Lake; and thus we had seen that remarkable sheet of water both at its northern and southern extremity, and were able to fix its position at these two points. The circuit which we had made, and which had cost us eight months of time and 3500 miles of travelling, had given us a view of Oregon and of North California from the Rocky Mountains to the Pacific Ocean, and of the two principal streams which form bays or harbours on the coast of that sea. Having completed this circuit, and being now about to turn the back upon the Pacific slope of our continent, and to recross the Rocky Mountains, it is natural to look back upon our footsteps, and take some brief view of the leading features and general structure of the country we had traversed. These are peculiar and striking, and differ essentially from the Atlantic side of our country. The mountains are all higher, more numerous, and more distinctly defined in their ranges and directions; and, what is so contrary to the natural order of such formations, one of these ranges, which is near the coast (the Sierra Nevada and the Coast Range), presents higher elevations and

peaks than any which are to be found in the Rocky Mountains themselves. In our eight months' circuit, we were never out of sight of snow; and the Sierra Nevada, where we crossed it, was near 2000 feet higher than the South Pass in the Rocky Mountains. In height, these mountains greatly exceed those of the Atlantic side, constantly presenting peaks which enter the region of eternal snow; and some of them volcanic, and in a frequent state of activity. They are seen at great distances, and guide the traveller in his course.

"The course and elevation of these ranges give direction to the rivers and character to the coast. No great river does, or can, take its rise below the Cascade and Sierra Nevada range; the distance to the sea is too short to admit of it. The rivers of the San Francisco Bay, which are the largest after the Columbia, are local to that bay, and lateral to the coast, having their sources about on a line with the Dalles of the Columbia, and running each in a valley of its own, between the Coast Range and the Cascade and the Sierra Nevada range. The Columbia is the only river which traverses the whole breadth of the country, breaking through all the ranges, and entering the sea. Drawing its waters from a section of ten degrees of latitude in the Rocky Mountains, which are collected into one stream by three main forks (Lewis's, Clark's, and the North Fork), near the centre of the Oregon valley, this great river thence proceeds by a single channel to the sea, while its three forks lead each to a pass in the mountains, which opens the way into the interior of the continent. This fact, in relation to the rivers of this region, gives an immense value to the Columbia. Its mouth is the only inlet and outlet to and from the sea; its three forks lead to the passes in the mountains; it is therefore the only line of communication between the Pacific and the interior of North America; and all operations of war or commerce, of national or social intercourse, must be conducted upon it. This gives it a value beyond estimation, and would involve irreparable injury if lost. In this unity and concentration of its waters, the Pacific side of our continent differs entirely from the Atlantic side, where the waters of the Alleghany Mountains are dispersed into many rivers, having their different entrances into the sea, and opening many lines of communication with the interior.

"The Pacific coast is equally different from that of the Atlantic. The coast of the Atlantic is low and open, indented with numerous bays, sounds, and river estuaries, accessible everywhere, and opening by many channels into the heart of the country. The Pacific coast, on the contrary, is high and compact, with few bays, and but one that opens into the heart of the country. The immediate coast is what the seamen call *iron bound*. A little within, it is skirted by two successive ranges of mountains, standing as ramparts between the sea and the interior country; and to get through which there is but one gate, and that narrow and easily defended. This structure of the coast, backed by these two ranges of mountains, with its concentration and unity of waters, gives to the country an immense military strength, and will probably render Oregon the most impregnable country in the world.

" Differing so much from the Atlantic side of our continent in coast, mountains, and rivers, the Pacific side differs from it in another most rare and singular feature—that of the Great Interior Basin, of which I have so often spoken, and the whole form and character of which I was so anxious to ascertain. Its existence is vouched for by such of the American traders and hunters as have some knowledge of that region; the structure of the Sierra Nevada range of mountains requires it to be there; and my own observations confirm it. Mr. Joseph Walker, who is so well acquainted with those parts, informed me that, from the Great Salt Lake west, there was a succession of lakes and rivers which have no outlet to the sea, nor any connexion with the Columbia, or with the Colorado of the Gulf of California. He described some of these lakes as being large, with numerous streams, and even considerable rivers, falling into them. In fact, all concur in the general report of these interior rivers and lakes; and, for want of understanding the force and power of evaporation, which so soon establishes an equilibrium between the loss and supply of waters, the fable of whirlpools and subterraneous outlets has gained belief, as the only imaginable way of carrying off the waters which have no visible discharge. The structure of the country would require this formation of interior lakes; for the waters which would collect between the Rocky Mountains and Sierra Nevada, not being able to cross this formidable barrier, nor to get to the Columbia or the Colorado, must naturally collect into reservoirs, each of which would have its little system of streams and rivers to supply it. This would be the natural effect; and what I saw went to confirm it. The Great Salt Lake is a formation of this kind, and quite a large one; and having many streams, and one considerable river, 400 or 500 miles long, falling into it. This lake and river I saw and examined myself; and also saw the Wah-satch and Bear River Mountains which enclosed the waters of the lake on the east, and constitute in that quarter, the rim of the Great Basin. Afterwards, along the eastern base of the Sierra Nevada, where we travelled for forty-two days, I saw the line of lakes and rivers which lie at the foot of that Sierra; and which Sierra is the western rim of the basin. In going down Lewis's Fork and the main Columbia, I crossed only inferior streams coming in from the left, such as could draw their water from a short distance only; and I often saw the mountains at their heads, white with snow, which all accounts said, divided the waters of the *desert* from those of the Columbia, and which could be no other than the range of mountains which form the rim of the basin on its northern side. And in returning from California along the Spanish trail, as far as the head of the Santa Clara Fork of the Rio Virgen, I crossed only small streams making their way south to the Colorado, or lost in sand—as the Mo-hah-ve; while to the left, lofty mountains, their summits white with snow, were often visible, and which must have turned water to the north as well as to the south, and thus constituted, on this part, the southern rim of the Basin. At the head of the Santa Clara Fork, and in the Vegas de Santa Clara, we crossed the ridge which parted the

two systems of waters. We entered the Basin at that point, and have travelled in it ever since, having its south-eastern rim (the Wah-satch Mountain) on the right, and crossing the streams which flow down into it. The existence of the Basin is therefore an established fact in my mind ; its extent and contents are yet to be better ascertained. It cannot be less than 400 or 500 miles each way, and must lie principally in the Alta California ; the demarcation latitude of 42 deg. probably cutting a segment from the north part of the rim. Of its interior but little is known. It is called a *desert*, and, from what I saw of it, sterility may be its prominent characteristic ; but where there is so much water, there must be some *oasis*. The great river, and the great lake, reported, may not be equal to the report ; but where there is so much snow, there must be streams ; and where there is no outlet, there must be lakes to hold the accumulated waters, or sands to swallow them up. In this eastern part of the Basin, containing Sevier, Utah, and the Great Salt lakes, and the rivers and creeks falling into them, we know there is good soil and good grass, adapted to civilised settlements. In the western part, on the Salmon-trout River, and some other streams, the same remark may be made.

"The contents of this great basin are yet to be examined. That it is peopled, we know, but miserably and sparsely. From all that I heard and saw, I should say that humanity here appeared in its lowest form, and in its most elementary state. Dispersed in single families, without fire-arms, eating seeds and insects, digging roots (and hence their name), such is the condition of the greater part. Others are a degree higher, and live in communities upon some lake or river that supplies fish, and from which they repulse the miserable *Digger*. The rabbit is the largest animal known in this desert : its flesh affords a little meat, and their bag-like covering is made of its skins. The wild sage is their only wood, and here it is of extraordinary size, sometimes a foot in diameter, and six or eight feet high. It serves for fuel, for building material, for shelter to the rabbits, and for some sort of covering for the feet and legs in cold weather. Such are the accounts of the inhabitants and productions of the Great Basin ; and which, though imperfect, must have some foundation, and excite our desire to know the whole.

"The whole idea of such a desert, and such a people, is a novelty in our country, and excites Asiatic, not American, ideas. Interior basins, with their own systems of lakes and rivers, and often sterile, are common enough in Asia ; people still in the elementary state of families, living in deserts, with no other occupation than the mere animal search for food, may still be seen in that ancient quarter of the globe ; but in America such things are new and strange, unknown and unsuspected, and discredited when related. But I flatter myself that what is discovered, though not enough to satisfy curiosity, is sufficient to excite it, and that subsequent explorations will complete what has been commenced.

"This account of the Great Basin, it will be remembered, belongs to the Alta California, and has no application to Oregon, whose capabilities may justify a

separate remark. In general and comparative terms, that, in that branch of agriculture which implies the cultivation of grains and staple crops, it would be inferior to the Atlantic states, though many parts are superior for wheat, while in the rearing of flocks and herds it would claim a high place. Its grazing capabilities are great, and even in the indigenous grass now there, an element of individual and national wealth may be found. In fact, the valuable grasses begin within 150 miles of the Missouri frontier, and extend to the Pacific Ocean. East of the Rocky Mountains, it is the short curly grass, on which the buffalo delight to feed (whence its name of buffalo) and which is still good when dry and apparently dead. West of those mountains it is a larger growth, in clusters, and hence called bunch grass, and which has a second or fall growth. Plains and mountains both exhibit them ; and I have seen good pasturage at an elevation of 10,000 feet. In this spontaneous product, the trading or travelling caravans can find subsistence for their animals ; and in military operations any number of cavalry may be moved, and any number of cattle may be driven ; and thus men and horses be supported on long expeditions, and even in winter, in the sheltered situations.

"Commercially, the value of the Oregon country must be great, washed as it is by the North Pacific Ocean, fronting Asia, producing many of the elements of commerce, mild and healthy in its climate, and becoming, as it naturally will, a thoroughfare for the East India and China trade.

The expedition under Captain Fremont returned from the Utah Lake over the pass by the Spanish branch of the river, and thence across a broken country, of which the higher parts were rocky, and timbered with cedar, and the lower parts covered with good grass. On the 3rd of June he arrived at Fort Uintah, a trading post belonging to a Mr. Roubideau, on the principal fork of the Uintah River, with a motley garrison of Canadian and Spanish *engagés* and hunters, with the usual number of Indian women.*

The longitude of the post is 109 deg. 56 min. 42 sec., the latitude 40 deg. 27 min. 45 sec.

On the 7th, they journeyed through beautiful little valleys and a high mountain country until they arrived at the verge of a steep and rocky ravine, by which they descended to '*Brown's Hole*' : a place well known to trappers, where the canons through which the Colorado flows, expand into a narrow pretty valley, about sixteen miles in length. The river was several hundred yards in breadth, swollen to the top of its banks, near to which it was in many places fifteen to twenty feet deep. They crossed the river with a skin boat which had been purchased at the fort. According to information, the lower end of this valley forms the most eastern part of the Colorado : the latitude of the encampment, opposite to the remains of an old fort on the left bank of the river, was 40 deg. 46 min. 27 sec., and the elevation above the sea 5150 feet ; here the river flowed between lofty

* This fort was attacked and taken by a band of the Utah Indians since Captain Fremont passed it, and the men of the garrison killed and the women carried off. Mr. Roubideau was absent, and so escaped the fate of the rest.

precipices of red rock, and the country below is said to assume a very rugged character; the river and its affluents passing through canons which forbid all access to the water. This sheltered little valley was formerly a favourite wintering-ground for the trappers, as it afforded them sufficient pasture for their animals, and the surrounding mountains are well stocked with game.

After leaving Brown's Hole they advanced over a country which has long been infested by the war-parties of the Sioux and other Indians, and considered among the most dangerous war-grounds in the Rocky Mountains; parties of whites having been repeatedly defeated on this river.

On the 11th of June they encamped a little below a branch of the river, called St. Vrain's Fork. A few miles above was the fort at which Frapp's party had been defeated two years previously; and they passed during the day a place where one of Carson's men was fired upon and had five bullets through his body.

On the 12th they reached the country of, and saw, the buffalo, and welcomed the appearance of two old bulls. As they descended to St. Vrain's Fork, an affluent of Green River, the hunters brought in mountain sheep and the meat of two fat bulls. They killed two fine cows near the camp. A band of elk broke out of a neighbouring grove; antelopes were running over the hills, and on the opposite river plains, herds of buffalo were raising clouds of dust. The country here appeared more variously stocked with game than any part of the Rocky Mountains they had visited; owing to the excellent pasture, and its being avoided by the hunters on account of its dangerous character as Indian war-ground.

On the 13th of June they reached the summit towards mid-day, at an elevation of 8000 feet. Captain Fremont says—"With joy and exultation we saw ourselves once more on the top of the Rocky Mountains, and beheld a little stream taking its course towards the rising sun. It was an affluent of the Platte, called *Pullam's Fork*, the name of a trapper who, some years since, was killed here by the *Gros Ventre* Indians. Issuing from the pines in the afternoon, we saw spread out before us the valley of the Platte, with the pass of the Medicine Butte beyond, and some of the Sweet Water Mountains."

He descended from the summit of the pass into the creek below, and encamped on a bottom of good grass near its head, which gathers its waters in the crest of the Rocky Mountains, and, according to the best information he could obtain, separated only by the rocky wall of the ridge from the head of the main Arkansas River. By observations, the latitude of the encampment was 39 deg. 20 min. 24 sec., and south of which he laid down the head of the Arkansas River.

On the following day they descended the stream by a buffalo trail, along the open grassy bottom of the river. On the right, the bayou was bordered by a mountainous range, crested with rocky naked peaks. Below the country

exhibited "a beautiful park-like character of pretty level prairies, interspersed among low spurs, wooded openly with pine and quaking asp, contrasting well with the denser pines which swept around on the mountain sides."

Pike's Peak was in view from the encampment. It bore N. 87 deg. E. by compass.

On returning from this region, after several days' laborious travelling, the expedition left the mountains, and on the morning of the 28th encamped immediately at their foot, on a tributary of the Arkansas River, and on the 1st of July arrived at Bent's Fort, about seventy miles below the mouth of the *Fontaine-qui-bouit*.

Captain Fremont left the Arkansas, about twenty miles below the fort, to examine the Kansas, and he observes, "The country through which we had been travelling since leaving the Arkansas River, for a distance of 260 miles, presented to the eye only a succession of far-stretching green prairies, covered with unbroken verdure of the buffalo grass, and sparingly wooded along the streams with straggling trees and occasional groves of cotton-wood; but here the country began perceptibly to change its character, becoming a more fertile, wooded, and beautiful region, covered with a profusion of grasses, and watered with innumerable little streams, which were wooded with oak, large elms, and the usual varieties of timber common to the lower course of the Kansas River. As we advanced, the country improved, gradually assimilating in appearance to the north-western part of Missouri. The beautiful sward of the buffalo grass, which is regarded as the best and most nutritious found on the prairies, appeared now only in patches, being replaced by a longer and coarser grass, which covered the face of the country luxuriantly. The difference in the character of the grasses became suddenly evident in the weakened condition of our animals, which began sensibly to fail as soon as we quitted the buffalo grass."

"The river preserved a uniform breadth of eighty or a hundred yards, with broad bottoms continuously timbered with large cotton-wood trees, among which were interspersed a few other varieties.

"After having travelled directly along its banks for 290 miles, we left the river, where it bore suddenly off in a north-westerly direction, towards its junction with the Republican Fork of the Kansas, distant about sixty miles; and, continuing our easterly course, in about twenty miles we entered the waggon road from Santa Fé to Independence, and on the last day of July encamped again at the little town of Kansas, on the banks of the Missouri River.

"During our protracted absence of fourteen months, in the course of which we had necessarily been exposed to great varieties of weather and of climate, no one case of sickness had ever occurred among us.

"Here ended our land journey: and the day following our arrival, we found ourselves on board a steamboat rapidly gliding down the broad Missouri. Our

travel-worn animals had not been sold and dispersed over the country to renewed labour, but were placed at good pasturage on the frontier, and are now ready to do their part in the coming expedition. On the 6th of August we arrived at St. Louis, where the party was finally disbanded ; a great number of the men having their homes in the neighbourhood."

The extracts and condensed accounts which we have prepared from the reports of exploring expeditions, from the recent travels of Americans in Mexico and California, although but embracing but a very limited portion of the actual letter-press of these reports, afford, in a compressed form, all the really important information recently obtained of countries hitherto but very imperfectly known : and the importance of the circumstance which now involve the future destinies of Oregon, California, and Mexico, and of the progress of the Anglo-Saxon race in America, constitute, we believe, a full justification of the length of this statement.

CONSTITUTION OF MEXICO.

AFTER the overthrow of the Imperial Government of Iturbide, a national representative body met, and before separating, at the end of fourteen months, agreed to a federal constitution, embracing the original royal states of New Spain. It was proclaimed on the 4th of October, 1824.* The first congress under it met on the 1st of January, 1825, with General Victoria, as president of

* This constitution was, with the exception of the article on religion, founded on the articles of the constitution of the United States of North America. Each of the Mexican states was to preserve the right of changing and modifying its state government, provided it retained the republican form. The congress of the Union was to consist of the president and the vice-president, and of two legislative bodies, the senate and the house of representatives. The senate to be composed of twice as many members as there are states ; every state sending two senators, elected by the legislative bodies of the state. The number of the members of the house of representatives were not limited. Every district containing a population of between 40,000 and 80,000 inhabitants, were entitled to choose a representative ; a census was to be made every ten years. The legislative bodies to meet on the 1st of January, and continue to the 15th of April ; but if necessary, might prolong it one month. The president might call an extraordinary meeting of the legislative bodies. The representatives were to be elected for two years ; the senators for four years.

The president, or executive, to be chosen by the legislative bodies of the different states. Every state to name two candidates, one of whom not to be a citizen of the state ; the congress to declare the person to be duly elected, as chosen by the majority of the states. The vice-president to be chosen in the same manner. The president and vice-president to remain four years in office. The president to appoint the secretaries of state, and the officers in the army and navy ; to be commander-in-chief of the forces, to treat with foreign powers, and cause the laws enacted by the congress to be published and executed. But he was required to consult the privy council, in which every state was represented by one member.

Disputes arising between the authorities of the United States or their citizens were to be decided by a superior court, consisting of eleven members, chosen by the legislative bodies of the states. That court to explain the true meaning of the laws whenever they are obscure, and to determine the limits of the jurisdiction of the federal courts of the republic. The crimes or misdemeanours of senators, representatives, ambassadors, consuls, and other public officers of the first rank, to be also tried by this court.

the federal republic. *Discord* and *Pronunciamientos* followed. One cabal declared that no man of Spanish birth should fill any public office. One opposed the federation, another the central system. Centralists were called *Escossais*, or Scotch—the federalists, the *Yorkinos*, or Yorkists: strange names for Spanish races. Sanguinary revolutions and insurrections continued. Rulers were overthrown, or replaced, or executed. After the execution of President Guerera, in 1831, an exiled president Pedraza, was recalled to serve out three months of his allotted term. Santa Anna succeeded in 1833. Pronunciamientos and insurrections were vigorously, and not very mercifully, quelled by him.

In the first year of his presidency, a “*Pronunciamiento*” was made in favour of the “*fueros*” of the church and army. The latter proclaimed him Dictator at Cuautla—he refused to accept—and marched against and subdued the insurgents at Guanajuato.

In 1835, a “*Pronunciamiento*” was published and quelled in Zacatecas. A few days after this victory there was another, called the “Plan of Toluca,” which was generally believed to have been framed by Santa Anna.

This plan was fatal to the federal system. It destroyed the constitution of 1824, vested the power in a central government, abolished the legislatures of the states, and changed those states into departments, under the control of military commandants and governors, responsible only to the chief authorities of the republic. This last bold act of Santa Anna, previous to his capture in Texas, formed in its principles, the basis of the “Central Constitution,” adopted in 1836, instead of the federal constitution of 1824.

When Santa Anna departed for Texas, Barrigan, whom he left in his absence as president, died, and Coro assumed the administration, until Bustamente (a former president), whose friends had elected him to the presidency under the new and central constitution, returned from France, where he had lived obscure since his defeat at Tenhilon, in 1830, by Santa Anna.

In 1838, the unfortunate Mexia advanced towards the capital of Mexico with a considerable army. He was met in the neighbourhood of Puebla by Santa Anna. Mexia was defeated, taken prisoner, and immediately shot, by order of Santa Anna.

Soon after Vera Cruz was blockaded by a French squadron, and attacked by the French troops. Santa Anna at once repaired to the port and assumed the command of the troops. While following the French, as they retreated to their boats, he was wounded in the leg.

He remained quiet during the “*Pronunciamiento*” of the Federalists under Urrea, at the palace of Mexico, on the 15th of July, 1840, which was suppressed by Valencia.

In August 1841, an insurrection was announced by the “*Pronunciamiento*” of Paredes in Guadalaxara, and enforced by Valencia and Lombardini, in the capi-

tal, and by Santa Anna at Vera Cruz. The consumption duty of 15 per cent was one of the grievances complained of; which, with the constitution of 1836, were difficulties entirely beyond the control of the administration of Bustamante. The "Pronunciamientos" of those generals were succeeded by a month's contest in the streets of Mexico; a bombardment of the capital; some conflicts between the rival troops of the neighbourhood; the downfall of Bustamante; the elevation of Santa Anna to the provisional presidency, and the "Plan of Tacubaya," by the seventh article of which he was invested with dictatorial powers.

By this plan, a congress was to meet in 1842, to form a new constitution. In June of that year, "*a corps of patriotic citizens, chosen by the people, met for that purpose in the capital.*" The provisional president, in a speech, declared forcibly his partiality for a firm and *central* government; but that he should acquiesce in the final decision of the congress.

In December 1842, after two attempts to form *a system* of administration,—the provisional president dissolved the congress, and convened a junta of notables. This junta, headed by Santa Anna, proclaimed on the 13th of June, 1843, "the bases of political organization of the Mexican republic." It is not called a constitution.

By this instrument, it is declared that Mexico adopts the form of a *popular representative* system for its government; that the republic shall be divided into departments; that the political power essentially resides in the nation, and *that the Holy Roman Catholic and Apostolic creed is professed and protected to the exclusion of all others.*

It declares that slavery is not to be permitted;—that no one is to be molested for his political opinions, or called on for contributions, except such as are regularly imposed by law.

It distinguishes who are Mexican citizens, their rights and obligations. Citizens are—all who are born within the Mexican territory, or beyond it, of a Mexican father; all who were alive in Mexico in 1821, and have not renounced their allegiance;—all who were natives of Central America when it belonged to the Mexican nation, and since then have continued to reside in Mexico;—and all who have obtained or shall obtain letters of naturalization.

The rights of citizenship, voting for qualifications, require that they must be eighteen years of age and married, or twenty-one years if not married; and they must enjoy an annual income of at least 200 dollars, derived from actual capital, industry, or honest personal labour. In addition to these requirements, no one will be allowed to vote, after the year 1850, *unless he is able to read and write.*

The rights of citizenship are suspended (among other disqualifications) by domestic servitude, habitual intemperance, taking of religious vows, keeping of prohibited gaming-houses, and fraudulent bankruptcy.

The legislative power is to reside in a congress, divided into a chamber of deputies and a senate.

The *Chamber of Deputies* is to be composed of individuals elected by the electoral colleges of the departments, in a manner which will be hereafter specified, and in the ratio of one for 70,000 inhabitants. The departments which have not so many residents shall, nevertheless, be entitled to a deputy, and there shall likewise be one for every fraction over 35,000. It is required, that a deputy shall be 30 years of age, and possessed of an annual income of 1200 dollars. A moiety of the chamber is to be renewed every two years.

The *Senate* is to be composed of 63 members, two-thirds of whom are to be elected by the departmental assemblies, and the other third by the chamber of deputies, the president of the republic, and the supreme court of justice. One-third of this body is to be renewed biennially. The departmental assemblies are to select five persons from each of the classes of agriculturists, miners, proprietors, or merchants, and manufacturers; the rest of the quota to be chosen by them from distinguished individuals. Those who are to be appointed by the president and the supreme court, are to be taken from among individuals who have signalised themselves in the civil, military, and ecclesiastical career. Senators must possess an annual income of 2000 dollars.

The congress, so constituted, to sit twice a year for the space of three months, commencing its terms on the 1st of January and 1st of July. Its members are not allowed to obtain place or preferment from the government, except for the most imperative reasons.

A third body, called the *Permanent Deputation*, is to be formed by this congress, and will be composed of four members of the senate and five of the chamber, whose term of office shall continue until the next meeting of the national assembly and the election of their successors. The duty of this permanent deputation is to call extra sessions of Congress whenever they may be decreed by the government, and to receive the certificates of the election of president of the republic, senators, and ministers of the supreme court of justice.

The *Executive Power* is confided for five years to a president, who must be a Mexican by birth, in the full enjoyment of all his rights of citizenship, more than forty years of age, and a resident of the republic at the time of his election.

Among the numerous duties prescribed for him by the *bases*, are the following:

To impose fines not exceeding 500 dollars on those who disobey his orders, and are wanting in due respect and obedience to the laws.

To see that prompt justice is administered; to visit the tribunals whenever he is informed of delays, or that prejudicial disorders exist in those bodies; to require that a preference be given to causes concerning the public welfare, and to exact information touching the same whenever it may be deemed proper.

To object (*hacer observaciones*) within thirty days (after audience of the council, which will be hereafter described), to the projects of laws approved by the chambers, suspending their operations in the mean time. If the project be reapproved, the government may suspend it until the near termination of the period when the chambers can consider the subject. If it be then approved by two-thirds of both bodies, the government will be obliged to publish it as a law. If the thirty days terminate after the regular period of the session, the government is to direct its observations to the permanent deputation; and if the term passed without any action by the president, the law will be considered as sanctioned, and published without delay.

The president may declare war, and dispose of the armed forces of the nation as he sees fit, according to the objects of their institution. He may expel from the republic *unnaturalized foreigners*, who are deemed dangerous; and he may name orators from the council to defend the opinions of the government before the chambers.

The *Council of the Government* is to be composed of seventeen persons named by the president, whose tenure of office is perpetual, and whose duties are to give their aid to the government in all matters required in these bases, and others upon which it shall be proper to consult them. It is their privilege, moreover, to propose to the government

all regulations and systems they may deem necessary for the public good in every branch of the administration.

The *judicial power* of the country is vested in a supreme court, in departmental tribunals, and others already established by law. There is to be a perpetual court martial, chosen by the president.

The *Government of the Departments* is regulated by the seventh title.

Each department is to have an assembly composed of not more than eleven, nor less than seven, who must be twenty-five years of age, and possessed of the qualifications required for a deputy to congress. Their term of office is four years.

The powers of these assemblies are very simple and irresponsible, and scarcely amount to more than a species of municipal police, the whole of which is subject to the review of the president of the republic, and of a governor appointed by the president.

Electoral Power.—The population of Mexico is divided into sections of 500 inhabitants for the election of primary juntas, and the citizens to vote, by ticket, for one elector for every 500 inhabitants. These primary electors will name the secondary, who are to form the *electoral college* of the department in the ratio of one secondary elector for every twenty of the primary. This electoral college, again, will elect the deputies to congress, and the members of the departmental assembly; and its members must have an income qualification of at least five hundred dollars per annum.

On the 1st of November of the year previous to the expiration of the presidential term, each departmental assembly, by a majority of votes, or, in case of a tie, by lot, will select a person as president for the succeeding five years. There is no clause in the instrument limiting the term or terms for which an individual may be elected, or prescribing a mode of supplying the vacancy occasioned by his death, resignation, or incompetency.

Mr. Mayer observes, "The people are divided into classes of citizens and inhabitants. Property qualifications are created, while domestic servants, and the clergy, are disfranchised in the same category with gamblers and drunkards, though they possess both the required income and education.

"The opinion of the people is not to be taken directly by vote in regard to the men who are to represent them in the departments and in congress, or to govern them in the presidency; but their sentiments are to be filtered through three bodies of electors before their representation is finally effected. And, last of all, the supreme power is vested in a *central government*, while the people are left with scarce a shadow of authority over their homes and interests in the departments.

"It will be at once observed, that the President Santa Anna has thus succeeded in enforcing his favourite scheme of centralism.

"The four millions of Mexican Indians (scarcely one of whom ever had an annual income of 200 dollars in his life), must always be unrepresented in the government. No hope is proposed to them of advancement or regeneration; while the chief magistrate, himself, is surrounded by a complicated machine, that wants every element of democratic simplicity, and possesses a thousand inlets to corruption and mismanagement.

"In either event, the president may deem himself safe. If the bases succeed in giving peace, progress, and prosperity to Mexico, he will have the honour of the movement. But if he finds that they are not efficacious, or are likely to injure his schemes, it will be a task neither of difficulty nor danger, in so complicated a maze, to loosen some trifling screw, or throw some petty wheel from its axle, by which the whole must be disarranged without the responsibility of even its humblest engineers.

"So long as the president rules under an instrument which gives him complete control of the army, the power to declare war, entire patronage of the civil list, the right to impose fines, veto laws, and interfere with the judiciary;—he will possess an authority too great to be intrusted to any one individual in our day and generation."

Since the institution of this central system, Santa Anna has been banished, another president elected—insurrections have succeeded insurrections—*Pronunciamientos* and the Presidentship of *Paredes*, and a war with the United States, are among the events of the year 1846.

STATISTICS OF MEXICO.

THE statistics of this magnificent country, from the anarchy which has prevailed since its independence of Spanish authority, are very deficient and uncertain. Official accounts are either not completed, or they are not made known to the public; unless it be in the form of vague statements. From estimates obtained by Mr. Ward, and the British, American, and French consuls—by Mr. Mayer, and by the Baron Von Humboldt, we have been enabled to compile the following statements:—

POPULATION.—The number of inhabitants in Mexico is not even approximately known: we have, in a former page, given the various estimates as collected by Mr. Mayer, viz:—7,015,509 inhabitants, about 1,000,000 of which were estimated of pure European race; 4,000,000 of aboriginal race; 2,000,000 of mixed breeds, and 6000 negroes.

Recent accounts do not correspond with the statements of Humboldt: for the increase of the population, since the independence of Mexico, is far from proportionate to his statements of the rapid increase during the thirty years previous to the period when he visited the country. The registry of the births and burials were then, he informs us, kept in many places with great accuracy by the parish clergy, whose emoluments depend somewhat on baptisms and funerals. Through the archbishop of Mexico, Humboldt had free access to these collections. The proportion of births to deaths throughout the kingdom was as 170 to 100; in some parts of the table-land of Mexico the proportion was as high as 253 to 100; but at Panuco, on the coast of the North Sea, it was as low as 123 to 100; this difference arose from the great salubrity of the table-land compared with the low, marshy lands upon the coast. He remarks that the salubrity of tropical climates depends more on the dryness of the air than its other sensible qualities. The burning province of Cumana—the coast of Coro—and the plains of Caracas, prove that excessive heat alone is not unfavourable to human life; that in very hot, but dry countries, mankind attain to a greater age than in the temperate zones. Humboldt says, while he was at Lima—

“A Peruvian Indian died at the age of 147; having been married for ninety years to the same woman, who had lived to the age of 117; till he attained to the age of 130, this venerable personage used to walk three or four leagues every day, but for the last twelve years of his life he had lost his sight. Many instances of similar longevity are related in the *Mercurio Peruano*. ”

“The table-land of Mexico, which constitutes three-fifths of the kingdom, enjoys not only a dry and light atmosphere, but a mild and temperate climate; the winters are as gentle as at Naples; the medium temperature of that season is from 13 deg. to 14 deg. of the centigrade thermometer: sometimes, indeed, though rarely, the thermometer descends below the freezing point; but in the greatest heat of summer it never rises in the shade above 24 deg. On the coast the medium temperature of the whole year is, on the contrary, about 25 deg. or 26 deg.; and wherever the air is moist as well as hot, the climate is exceedingly unwholesome; this is the case upon the north coast of Mexico,

from the mouth of the river Alvarado to the river Tampico, and plains of the New Santander; and the south coast is equally unhealthy, from San Blas to Acapulco. The combination of heat and moisture in the atmosphere, in like manner, renders the coast of Caracas unwholesome, from New Barcelona to Puerto Caballo."—*Thompson's Alcedo*.

The population of the whole viceroyalty of Mexico, as calculated in 1703 by the census ordered by Revillagigedo, viceroy of the kingdom, amounted at that time to 4,483,559 souls, and in 1808 Von Humboldt says the population was 7,800,000. From an examination of the registers of different parishes, he estimates the proportion of births to the whole population as one to 17, and that of deaths as 1 to 30; and he finds the number of male births to be greater than that of females, in the proportion of 100 to 97, which is somewhat less than the proportion observed in France. At this rate of increase Mexico should now be as populous as the United States, instead of being estimated at less than in 1808.* The data on which M. Von Humboldt calculated were most assuredly of no value. He informs us also that—

"The tithes, which are collected from all sorts of agricultural produce, have doubled in their amount in twenty-four years, and he describes the general face of the country as indicating 'the rapid progress and extension of its agriculture. Fields brought recently into cultivation, country-houses building or lately erected, populous, rising, and industrious villages, are the objects which meet the eye of the traveller in every direction in which he crosses the country.'"

"Another indication of the growing prosperity of Mexico," says Von Humboldt, "was the productiveness of the taxes levied on its internal trade and consumption. The duty of *alcabala* in the kingdom of Nueva Espana, which from 1766 to 1778 inclusive, yielded only 19,844,054 dollars, produced in the same number of years, from 1772 to 1791 inclusive, 34,218,463½ dollars; making a difference in favour of the second period of 14,374,409. The *alcabala* was an oppressive tax of six per cent on all commodities sold in the interior of the country, and exacted as often as the

* Mr. Waddy Thompson, lately American minister at Mexico, says—"My own observation would lead me to believe that the number of mulattoes is very small. I am sure that I never saw half a dozen in the city of Mexico, and the African blood is, I think, easily detected. The appearance of the mulattoes is almost as distinct from the Indian as it is from the white man; there is a manifest difference even in colour. Of the number of Mestizoes, descendants of the Indian and white races, it is impossible to form even a conjecture with any approach to accuracy. As the cross partakes more or less of either of the races, it is difficult to say whether the individual is of pure or mixed blood. When the Indian cross is remote, it is difficult to distinguish the person from a swarthy Spaniard, and so vice versa. Neither do I think that there are many Zamboes, for the African blood shows itself as distinctly in the cross with the Indian as with the white man. I have never looked upon any colour so horribly revolting as that of the Zambo. Many of the inhabitants of the Pacific coast are very dark, as dark as brown negroes, and darker than mulattoes, but have none of the physical or physiognomical peculiarities of the negro. They are tall, well-formed, fine-looking men, with limbs and faces much more Grecian than African. If I were to form an opinion of what I saw, I should say that the estimate of white persons is a large one. They are much confined to the cities, and a few wealthy proprietors, who reside upon their estates. I am quite sure that nine of every ten persons whom one meets in the streets of Mexico are Indians or Mestizoes, and it is in that city that the white population is greater in proportion than anywhere else; in travelling in the country it would be safe to wager that forty-nine of every fifty persons you might meet would be Indians. I have heretofore spoken of the sympathy of race, but it is not half so strong as the antipathy of race. The feelings of the Indians of Mexico towards the Spaniards is very much the same now that it was at the period of the Conquest. Although every thing admonishes them that the European is the superior race, they are generally averse to alliances with them, and whenever such are formed, they are prompted more by interest than inclination."

sale is repeated. Its productiveness was consequently the best indication possible of the prosperity of internal trade."

We have great respect for M. Von Humboldt, but the above remarks would incline us to conclude that he would have made a meagre commercial minister.

RELIGION AND ECCLESIASTICAL ESTABLISHMENTS.

The Roman Catholic faith is the only religion publicly tolerated by the constitution of Mexico; other religions, but not places of worship, are merely allowed by sufferance. The church establishment has remained much the same as under Spain. The hierarchy consists of the Archbishop of Mexico, nine bishops, and from three to five thousand parish priests. There are ten cathedrals with innumerable canons and many other dignitaries. There are nearly 2000 monks, and more than 150 convents. Church property neither paid under Spain, nor since the revolution, any state burden or tax. The priests and monks have the sole distribution of all money bequeathed for charitable or pious uses. The old Spanish monks and priests were banished during the revolution, their places, like civil offices, were filled by creoles.

Mr. Mayer, in his work on Mexico, regrets his want of an accurate account of convents, property, numbers, and wealth of the religious orders in 1842,

The want of a general work of reference on statistics is denounced, as "shameful and lamentable," by Senor Otero in his treatise on the social and political condition of Mexico. "In 1842," says this writer, "we possess no publication upon Mexican statistics except the work of Baron Humboldt, written in 1804. That work, precious as it is, has become useless as a guide, in consequence of the immense changes during the intervention of a long and revolutionary period. A complete statistical treatise might be easily compiled without expense to the National Treasury, by merely obliging the functionaries of the government to make regular and minute returns, which should be digested and edited by competent persons in the capital. Without such a work it will be impossible to understand the complicated interests of this vast country, or to keep the machinery of its government in successful operation."*

"It is difficult to say with accuracy, for the reasons I have already assigned, what this wealth at present is,—but I think the number of convents, devoted to about 2000 nuns in the republic is fifty-eight; for the support of which (in addition to a floating capital of rather more than *four millions and a half*, with an income therefrom of 250,000 dollars), they possess some 1700 estates or properties, producing an annual revenue of about 560,000 dollars.

"There are about 3500 SECULAR CLERGYMEN and 1700 MONKS.

"The latter possess 150 conventual establishments, and divided as follows: Dominicans, 25; Franciscans, 68; Augustines, 22; Carmelites, 16; Mercedarios 19—total 150. The number of nuns, 2000; of monks, 1700; of secular clergy, 3500—total 7200. A number certainly inadequate to the spiritual wants of a population of 7,000,000, and yet too small to be proprietors of estates worth at least 90,000,000 of dollars, according to the annexed valuation.

* Otero, *Cuestion Social y Politica*, p. 30—31.

	dollars.
Real property in town and country	18,000,000
Churches, houses, convents, dwellings, furniture, jewels, precious vessels, &c	52,000,000
Floating capital—together with other funds—and the capital required to produce the sum received by them annually in alms	20,000,000
Total	90,000,000

"The real property is estimated to have been worth at least twenty-five per cent more previous to the revolution, and, to this enhanced value must be added about 115,000,000 dollars of capital, founded on '*contribuciones*' and '*derechos reales*,' to *imposts* to which they were entitled, on the property of the country.*

"The value of their churches, the extent of their city property, the power they possess as *lenders*, and the quantity of jewels, precious vessels, and golden ornaments, will raise the above statement, I am confident, to nearer 100,000,000 dollars than ninety, or to a sum about *eighty-eight millions less* than it was before the outbreak of the war of independence; at which period, the number of ecclesiastics is estimated to have been 10,000 or 13,000, including the lay-brotherhood and the subordinates of the church."

During the royal government it was the policy of the Spanish cabinet to cherish the temporalities of the Mexican church. The *mayorazgos*, or rights of primogeniture, forced, as in Spain, the younger sons either into the profession of arms or of religion; and it was resolved that ample provision should be made for them. All the lucrative benefices came into the hands of the crown or the hierarchy, and the greater number of the elevated ecclesiastics were men of high birth.

The rights of primogeniture having been abolished in the republic, the power to collect *tithes* by compulsion is also abrogated. The church has become odious in the upper classes *as a means of maintenance*, and its members now belong to the humbler classes. But wealth and superstition has preserved for it a powerful influence over ignorance.

It is remarkable that the army has become equally unpopular with the upper class of Mexicans as a profession; its command is generally intrusted to men who have arisen from the people. Both the church and army sustain each other against the aristocracy of landed proprietors, who chiefly live retired.

Mr. Mayer, however, observes: "The government, pressed by its wants, is beginning to encroach gradually on its resources, and within the last two years has appropriated parts of the real estates of the clergy to replenish an empty treasury. That such is an honest and patriotic devotion of ecclesiastical means, no one can deny, and the doctrine is sustained by legal writers of the highest authority.† The church has no

* *Vide Otero*, p. 38, 39, 43.

† *Vide Vattel*, book I, chap. xii. sec. 152.

"The state," says this high legal authority, "has unquestionably the power to exempt the property of the church from all imposts, when that property is not more than adequate to the support of the ecclesiastics. But the priesthood has no right to this favour except by the authority of the state, which has always the right to revoke it when the public good requires. One of the fundamental and essential laws of society is, that on all occasions of need the goods of all its members ought to contribute proportionably to the wants of the community. Even the prince himself cannot, by his authority, grant an entire exemption to a numerous and wealthy body of persons, without committing an extreme injustice to the rest of his subjects, upon whom the burden would altogether fall by this exemption."

Mr. Mayer follows Vattel, by saying, "Far from the goods of the church being exempted because they are consecrated to God,—it is for that very reason that they should be the first taken for the welfare of the state. There is nothing more agreeable to the Common Father of men than to preserve a nation from destruction. As God has no need of property, the consecration of goods to Him, is their devotion to such usages as are pleasant to him. Besides, the property of the church, by the confession of the clergy themselves, is chiefly destined for the poor. Now, when the state is in want, it is, doubtless, the first pauper and the worthiest of succour. We may extend this reasoning to the most ordinary cases, and say, that to impose a part of the current expenses on the church property in order to relieve the people to that extent, is really to give those goods to the poor, according to the spirit of their original destination."

need of possessions, except for the purposes of beneficence and charity. The vow of its members is for chastity and poverty. It receives only to become an *almoner* for more extensive benevolence. And as the state in the hour of need, must ever be the chief pauper, she has an unquestioned right to call upon the ministers of God, in the spirit of the religion they teach, to open their coffers freely for the public good. With its 90,000,000 or 100,000,000 of property and money, it might extinguish the national debt of 84,000,000, and still leave an ample support for its 7000 members, or, at least, for its secular clergy, who would be cherished and sustained more liberally by the masses for an act of such Christian sacrifice and benevolence."

EDUCATION.

Of the total population, it was estimated that only 687,748 could read—including women and children.* Of the male population, Mr. Mayer considers that not more than 100,000 can read and write; and then observes ;—

" We will no longer be surprised that a population of more than seven millions has hitherto been controlled by a handful of men. In addition to this, you will observe how little has been done hitherto for the cause of learning by the government, when you examine a table of the expenses of the nation, by which it will be seen, that in the year 1840, while 180,000 dollars were spent for hospitals, fortresses, and prisons, and 8,000,000 dollars for the army (without a foreign war!), only 110,000 dollars were given to all the institutions of learning in Mexico."†

Mr. Mayer's further remarks are, however, more consolatory. He says, " I learn, however, with pleasure, that under the new scheme of national regeneration which has recently been put in action, the subject of education has engaged the especial attention of the existing powers, and that they design to foster it by every means in their power.

" In every one of the parishes into which the city of Mexico is divided, there is established a school for boys, and another for girls, supported by the *Ayuntamiento*, or town council. In these establishments the pupils are taught, without charge, to read, write, and calculate, and are besides instructed in religious and political catechisms. In the schools for girls, in addition to these branches, they learn sewing and other occupations suitable for their sex. Books and stationery are furnished gratis.

" There is another establishment called the Normal School, supported by the government, and devoted to the instruction of the soldiers of the army in the rudiments of learning. Advancement and improvement in this school are suitably rewarded by ranks in the army. Besides this, there is, also, a *Lancasterian company*, which, commencing its labours in the capital, is spreading its branches all over the country. It is devoted to primary instruction, and is protected by all the citizens of the republic who are remarkable either for their wealth, education, or social position. The contribution is a dollar monthly. I am glad to learn that, since I left Mexico, the usefulness of this

* " In fact," says M. Chevalier, " elementary instruction has remained what it was in the time of the Spaniards. The clergy had then the exclusive management of it, and having so still, show but little inclination to enable the poor to read the books published under the régime of a free press. There are even fewer schools than there were, in consequence of the diminution in the number of the clergy. Education of a superior kind is even worse provided for. Under the Spaniards there existed at Mexico a school for the fine arts, richly endowed: I have been unable to discover its existence now. There is a building called a museum, where I found nothing of interest except a collection of the portraits of the viceroys since the time of Cortez, and a few Aztec manuscripts. Some years ago the establishment of a polytechnic school was decreed, but the decree has yet to see the commencement of its execution. There is not even a military school, though the attention of the government is almost exclusively devoted to the army. There is nothing deserving the name of a school of law or medicine; and it may be well imagined that schools of industry or commerce are wholly unknown."

† The United States census for 1840 gives the following results ;—

Number of universities and colleges	173	Scholars at public charge.....	468,264
" of students in ditto.....	16,238	Total number of whites in the	
Academies and grammar schools...	3,242	United States.....	14,189,108
Students in ditto	164,159	Total number of whites in the	
Primary common schools	47,209	United States over the age of 20	
Scholars in ditto.....	1,845,244	who cannot read and write	549,693

company has been so apparent to the people, that schools upon its plan have not only been established in the principal cities and towns, but that they are now being founded in almost every village of importance, and even upon extensive haciendas or plantations, where the labouring population is numerous and ignorant.

In the city of Mexico this company has formed a large number of schools for children of both sexes, upon the same footing as those established by the Ayuntamiento ; that is to say, the pupils are taught without charge, and are furnished with the requisite stationery and books. There is a night school for adults, very fully attended by citizens, whose occupation prevents them from devoting themselves to study during the day. In the women's and men's prisons, and in the house of correction for juvenile delinquents, I also learn that schools have been formed ; and it is by no means a cheerless feature in this picture of dawning improvement, that the ladies of Mexico, most distinguished by talent, wealth, and cultivation, have gladly availed themselves of the opportunity to devote a portion of their time for the purpose of instructing their unfortunate sisters in the prisons.

"Besides these establishments (which are all of a free and public character), it is difficult to give any idea of the number of private schools for both sexes in the capital and departments. Many of them are conducted by foreigners as well as Mexicans, and although they generally instruct in French, English, grammar, reading, writing, arithmetic, geography, the rudiments of history, book-keeping, drawing, and music, I have reason to believe that none of them are remarkable for the regularity or perfection of their system.

"In the city of Mexico there are the collegiate establishments of El Seminario Conciliar, San Ildefonso, San Gregorio, and San Juan Lateran. The first of these is under the immediate supervision of the archbishop, and supported by a portion of the ecclesiastical revenues. The other three are under the care of the government. In almost all the departments of the republic, there are collegiate institutes, and in some, even two or three.

"The course of instruction in these establishments is alleged to be thorough and modern. The students, who live within the walls, are expected to contribute for their education, while others, who only attend the lectures of the professors, are exempt from all costs and charges, so that about two-thirds of the pupils of every college receive their literary education gratuitously.

"The regeneration of Mexico lies in her schools. Without their success she must not expect to drive *leperos* from the streets, or usurping dictators from the palace of her ancient kings."

Mr. Thompson speaks rather more favourably of the progress of common instruction. He says "he had not a servant when he was in Mexico who could not read and write—not very well, it is true;" and he continues—"I often observed the most *ragged leperos*, as they walked down the streets, read the signboards over the store doors. How this happens I know not, unless it be the effect of Lancasterian schools, which are established all over the country, chiefly, I think, through the instrumentality and exertions of General Tornel—a noble charity, which should of itself cover a multitude of sins much greater than those which even his enemies impute to him."—*Recollections of Mexico. New York, 1846.*

When Mr. Mayer wrote there were forty-four newspapers in the republic.

REVENUE AND EXPENDITURE OF MEXICO.

THE public revenue of a state, if equal to its necessary expenditure, and if equitably levied, constitutes not only the great element of the power and permanency of government, but of the steady industrial and moral condition of the people. The distribution, levying, and proceeds of the taxes,—the expenditure of the revenue,—and the maintenance of public credit in Mexico unfortunately does no honour to the wisdom of the different administrations, nor to the intel-

ligence of those who in the legislative assemblies have passed laws for raising a public revenue. Of several statements, the following, drawn up by Mr. Mayer, is that which seems, approximately, the most correct:—

"The income of the Mexican government is derived from revenues on foreign commerce, imposts on internal trade, imposts on *pulqué*, export duty on the precious metals, lotteries, post-office, stamped paper, taxes, tobacco, powder, salt-works, and several other sources of trifling importance.

"The amount of the revenue of Mexico at different dates has been given as follows:—

Y E A R S .	R E V E N U E .	Y E A R S .	R E V E N U E .
	d o l l a r s .		d o l l a r s .
1700.....	3,000,000	1827.....	10,494,299
1763.....	5,705,876	1828.....	12,232,385
1780.....	15,010,974	1829.....	14,493,189
1802.....	20,380,000	1830.....	18,923,299
1825.....	10,690,602	1831.....	16,413,960
1826.....	13,289,682		

"In 1840, these revenues are stated in the report of the minister of the treasury as follows:—

FOREIGN COMMERCE, &c.	Nett Proceeds after deducting Expense of Collection.	FOREIGN COMMERCE, &c.	Nett Proceeds after deducting Expense of Collection.
Imposts on foreign commerce.....	d o l l a r s .	Brought forward.....	d o l l a r s .
" on interior	7,115,849	Enteros de productos líquidos.....	12,199,986
" on property, income, &c.	4,306,585	Extraordinary subsidy.....	452,146
Exchanges, &c.....	466,061	Arbitrio extraordinario.....	103
Creditos activos.....	307,427	Capitación	78,177
Balances of accounts.....	3,909	Donations.....	483
	355	Total.....	13,662
Carried forward.....	12,199,586		12,744,157

"In 1839 the revenues amounted to 11,215,848 dollars. The income from the post-office department (which is not included in the statement for 1840), was 178,738 dollars in 1839. In 1840 the lotteries produced the gross sum of 215,437 dollars, but as the expenses connected with their management amounted to 158,485 dollars, it left a balance of but 56,952 dollars for the government. The '*sealed paper*', or stamp-tax produced 110,863 dollars, but as this impost has been nearly doubled during 1842, the revenue must at present be proportionally greater.

"I have been unable to obtain any of the official documents of 1841 and 1842 (in consequence of the disturbed condition of the country), with the exception of the following custom-house returns for the former year.

C U S T O M - H O U S E S .	T O N N A G E D U T Y .	N E T T P R O C E E D S a f t e r d e c u t i n g C o s t s o f C o l l e c t i o n .
	d o l l a r s .	d o l l a r s .
East coast. { Vera Cruz.....	31,032	3,374,528
Tampico.....	7,263	1,010,046
Matamoras.....	8,525	279,627
Mazatlán.....	6,245	897,213
West coast. { Guyamas.....	2,092	46,189
Monterey.....	810	85,983
Acapulco.....	873	7,193
San Blas.....	2,719	190,270
Total.....	55,259	5,399,948

"It will be perceived that the custom houses of Tabasco, Campeachy, Sisal, Isla de Carmen, and Bacalar, are not included in the preceding statement in consequence of the separation of the first (during the period) from her allegiance to the republic, and on account of the rebellious condition of the rest. At the date of the statement, reports from Goatzacoalco, Alvarado, Tuxpan, Huatulco, Manzanillo, La Paz, Pueblo Viejo, Altata, Loreto, San Diego, San Francisco, Soto la Marina, and from the frontier posts of Paso del Norte, Comitan, Tonala, Santa Fé de N. Mexico, y Presidio del Norte, had not been yet received at the treasury office in the capital. The costs of the collection of this revenue amounted to 52,886 dollars, and the salaries of officers to 295,404 dollars.

SMUGGLING.—“No one who has resided any length' of time in Mexico, either connected or unconnected with commerce, can fail to have heard of the extent to which smuggling has been and still is carried on in the republic. This infamous system, alike destructive of private morals and public integrity, has become a regular business in portions of the country, and, after having been, to a great extent, suppressed on the eastern coast, has for several years occupied the attention of numbers on the west. Mr. M'Clure calculated that the republic possesses “a frontier of five thousand miles, including the sinuosities, windings, and turnings of bays, gulfs, and rivers on the Pacific; three thousand miles on the United States of America and Texas; and above two thousand five hundred on the Gulf of Mexico ; making, in all, ten thousand five hundred miles; of frontier to guard against illicit trade, *without an individual on the one thousand two hundredth part of the space to give notice of any depredations that may happen.*”

Mr. Mayer observes,—“That wherever there are smugglers to introduce it is probable that there are individuals to receive, and consequently that the government, *might* be protected; still it is undeniable that the territory is vast, the population sparse, and the corruption of government agents has been as shameful as it was notorious. Facts came to my knowledge while a resident in Mexico, which proved beyond question, this immoral tampering, and went far to implicate men of rank and capacity in the country. I forbear to detail these occurrences here, but I have the documents in writing, under the attestation of an individual who was approached by one of the vile instruments in the deed of shame, and I feel perfectly satisfied of their unexaggerated accuracy. I do not mention this circumstance for the purpose of reflecting on the existing government, but simply to direct the attention of such Mexicans as may read these letters to a frightful evil, the extirpation of which will at once increase the financial resources of the country and improve the morals of their people. It may be urged, perhaps, that it is impossible to correct this maladministration ; and, I confess, there appears to be much force in the remarks which I subjoin from the author I have just quoted. At page 292 of his ‘Opinions,’ Mr. M’Clure observes :

“In the comparatively limited frontiers and crowded population of the European monarchies, with their hundreds of thousands of soldiers and officers of the customs, it has been found impossible to prevent smuggling, with all its attendant crimes and corruptions. What hopes, then, can a small population scattered over so extensive a surface have that a revenue will be collected, even if it were probable in the present state of morals to find honest collectors ! It would be contrary to all former experience and analogy, to expect any thing else in this country than a gradual diminution of the revenue, in the ratio of the organisation of smuggling. All additional guards or officers of the customs would certainly increase the quantity of bribery and corruption, but would not add to the revenue a sum equal to their pay !”

NATIONAL DEBT AND FINANCES OF MEXICO.

The national debt of Mexico is one of very considerable importance, and may be divided into the two great classes of foreign and internal debt.

The internal debt amounts to 18,550,000 dollars ; and in 1841 the customs were mortgaged to pay this sum, in the following subdivisions :—

INTERNAL DEBT.	Amount.
17 per cent of the customs devoted to a debt of.....	dollars.
15 " " " " " "	2,040,000
12 " " " " " "	410,000
10 " " " " " "	2,100,000
8 " " " " " "	3,100,000
10 " " " " tobacco fund debt.....	1,200,000
16 ^{1/2} " " " " interest on English debt..	9,700,000
10 " " " " garrison fund.....	100
98^{1/2}	18,550,000
1^{1/2} balance clear of lien, for the government !	•

The foreign debt is still larger than this ; and (including the above), I will state the entire national responsibility, as it existed at the end of last year :—

F O R E I G N D E B T.	Amount.
Internal debt.....	dollars. 18,550,000
Debt to English creditors.....	60,000,000
United States claims and interest, say.....	2,400,000
Copper to be redeemed.....	2,000,000
Claims for Hilazo.....	700,000
Bustamante loan.....	500,000
Total.....	84,150,000

Until 1841, the whole of the revenue, except 11½ per cent was appropriated to the payment of 18,550,000 dollars, while the remaining claims were entirely unprotected by securities. Shortly after the accession of Santa Anna to power, he *suspended* (by a decree of the 16th of February) the payment of the first five funds charged upon the customs, as stated in a preceding table, but reserved the *active appropriation* for the tobacco and *English interest debts*. This, as may be well imagined, created great dissatisfaction among the mercantile classes, and among numbers of persons who had invested their capital in government loans, with a reliance upon the *revenues* as a solemn pledge for their redemption. Santa Anna, however, withheld the torrent manfully. He was assailed by legations, newspapers, and individuals, but nothing could induce him to yield the pressing wants of the government to their importunities. He was, in fact, forced to the measure. The national credit was irremediably impaired, and he found it impossible to obtain loans. The consequence was the seizure of the customs by the *suspension* of their prior appropriation until he was enabled to relieve his treasury.

PROSPECT OF PAYMENT OF THE DEBT OF MEXICO.

As to the prospect which may be held in view in regard to the payment of either interest or principal of this debt, we have little further to observe than that, in June this year, 1846, President General Parades tells the assembled legislative congress, that, however much convinced "that credit is the first element of power to a government, and reliance on its good faith the greatest resource of its strength, he had been reluctantly compelled to suspend provisionally the payments of government; an extreme measure, rendered, however, imperative to save the nation from ruin, a ruin that must have equally been shared by its self-same creditors; and, in conclusion, he urged congress to adopt some method of finance, capable of assisting him to carry on the war with vigour, and support the honour of the country."

Independently of the English and the American debt, the claims upon the Mexican government have usually been created by means of loans of the most usurious character.

On the 20th of September, fifteen days before the treaty of Estansuela, the administration of President Bustamante offered the following terms for a loan of 1,200,000 dollars. It proposed to receive the sum of 200,000 dollars in *cash*, and 1,000,000 dollars represented in the *paper or credits* of the government. These credits or paper were worth, in the market, nine per cent. About one-half of the loan was taken, and the parties obtained orders on the several maritime custom houses, receivable in payment of duties.

The revenues of the custom house of Matamoras have been always hitherto appropriated to pay the army on the northern frontier of the republic. During the administration of General Bustamante, the commandant of Matamoras issued bonds or drafts against that custom house for 150,000 dollars, receivable for all kinds of duties as cash. He disposed of these bonds to the merchants of that port for 100,000 dollars, and in addition to the *bonus* of 50,000 dollars, allowed them interest on the 100,000 dollars at the rate of three per cent per month, until they had duties to pay which they could extinguish by the drafts.

The mint at Guanajuato, or the right to coin at that place, was contracted for in 1842 by a foreign house in Mexico, for 71,000 dollars *cash*, for the term of *fourteen years*, at the same time that another offer was before the government, stipulating for the payment of 400,000 dollars for the same period, payable in annual instalments of 25,000 dollars each. The 71,000 dollars in hand were, however, deemed of more value than the prospective 400,000 dollars! This mint leaves a nett annual income of 60,000 dollars!

It appears to us quite evident that all the taxes which can be levied, even to an amount equal to confiscation, on the produce of labour in Mexico, will be found to be far short of the amount necessary to maintain the army, the civil expenditure, and the payment of the interest of the national debt; especially while the church and priests absorb so large a share of the produce of industry.

TABLE of the Expenses of the Mexican Government, in 1840.

CIVIL LIST.	Expenses.	TOTAL.	CIVIL LIST.	Expenses.	TOTAL.
	dollars cts.	dollars cts.		dollars cts.	dollars cts.
SUPREME POWERS. Poder conservador.....	30,000 00		Brought forward.....	....	3,507,607 60
Legislature.....	319,550 00		Instruction, &c.—(continued)		
Executive, ministers, council, secretary, archives, &c....	230,920 00		Conservatory of Chapultepec, and professor of botany.....	2,300 00	
Supreme court.....	75,500 00	639,780 00	Colleges of St. Juan Lateran, Ildefonso, Esperito Santo at Puebla.....	20,000 00	
DIPLOMACY. Legations, consule, commis- sioners, &c.....	140,000 00	140,000 00	Professors in university at Mexico.....	7,613 00	
TREASURY. National treasury, almacanes generales, direccioen de rentas, heads of the trea- sury, and departmental treasuries.....	251,758 60		School of Surgery.....	1,500 00	
Pensions to retired officers..	174,042 00		Professors of medical school or college.....	10,800 00	
Pensions of the <i>Mont de Piete</i>	160,554 00	587,254 60	Director of Institution of Me- dical sciences, &c. &c.....	2,160 00	
JUDICIARY. Salaries of departmental ma- gistrates, judges, and sub- alterns.....	1,907,376 00	1,207,376 00	Hospitals, prisons, fortresses	180,000 00	260,409 00
POLITICAL. Governors, secretaries, de- partmental juntas, prefects, their secretaries and sub- prefects.....	847,467 00	847,476 00	SALARIES OF VARIOUS OFFICERS OF PALACE.		
ECCLESIASTICAL. Bishoprics of Sonora and Yu- catan.....	15,300 00		Concierge.....	420 00	
Missions.....	31,930 00	47,130 00	Architect.....	200 00	
INSTRUCTION, BENEVO- LENCE, AND PUNISH- MENT.			Chaplain.....	600 00	
Academy of San Carlos.....	13,000 00		Two porters.....	1,200 00	
Museum.....	5,600 00	18,600 00	Gardener.....	1,000 00	3,420 00
Carried forward.....	....	3,507,607 60	RENTS, PENSIONS, &c.		
			Collegiate of N. S. of Guadalupe.....	26,391 49	
			Civil pensions.....	70,178 00	96,596 49
			SUNDRIES.		
			Printing, &c. &c.....	87,596 53	87,596 53
			WAR-OFFICE.		
			Salaries of officers—(active).	357,397 36	
			" " (on leave)	28,759 70	
			" (retired).	718,399 30	
			Military <i>Mont de Piete</i>	291,079 59	
			Army, privates, and all other military expenses.....	6,604,379 79	
			Dividends on foreign debt...	....	8,000,000 00
			Total.....	....	1,153,923 25
			Exclusive of the payment of loans and balances.	....	13,155,923 25

The mode of taxation in Mexico is severely and justly commented on by the late American minister, Mr. Thompson. Alluding to the exports, he says, out of the official gross amount.

" Of the average of 22,000,000 of exports, less than 2,000,000 consist of all other articles than the precious metals. I have no doubt that the amount of specie exported is very much larger than is indicated by the books of the custom-houses. A duty of six per cent is levied upon all that is exported, and no one acquainted with the character and practices of Mexican custom-houses, and I may add, of their officers, can believe that the whole amount is returned. The duty upon all that is not returned goes into the pockets of the officers of the customs, and I have no doubt that it amounts to a very large sum. Gold is an article so easily smuggled that enormous sums are sent off in almost every vessel which sails for Europe. *The amount of duties on imports varies, of course, with their ever-changing tariff.* Those who had the best means of forming an accurate estimate during my residence in Mexico, told me that it amounted to from 4,000,000 to 6,000,000 per annum. This, also, would be a most fallacious standard by which to estimate the amount of importations, for the same reason. Eminent writers upon political economy say that any duty above twenty-five per cent offers temptations to smuggling too strong to be resisted. With all the efforts of Buonaparte to carry out his continental system, he was unable to prevent smuggling upon the very limited coast of France—and the insurance in England upon a cargo of goods intended to be smuggled into France was little more than on the same cargo to be regularly imported. How ex-

tensive must the practice be in a country like Mexico of more than 10,000 miles of sea-board and frontier, and with so sparse a population!

"In addition to the revenue derived from imports, the direct taxes are exceedingly onerous. Every thing is taxed, from the splendid palaces, coaches, and plate of the wealthy, to the dozen eggs which the poor Indian brings to market. *I do not suppose there is any city in the world where houses are taxed so high, and hence the enormous rents. But after paying the taxes very little is left to the proprietor. A decent house cannot be had for less than 2500 dollars, and from that price to 4000 and 5000 dollars per annum.*

"The government seems to have been engaged in the experiment of how much taxation the people can bear, and they have really achieved a miracle almost as great as that of extracting blood from a turnip. There is no country in the world, which, from its unsurpassed climate, variety of productions and lands, to be had almost for the taking, which, in proportion to its population, is capable of producing so much,—certainly none which does produce so little. The population of Massachusetts is about one-tenth as great as that of Mexico, and its productions very nearly in an inverse ratio with the number of the respective populations—excluding the produce of the mines very much more than in that inverted ratio.

"Besides the sources of revenue which I have mentioned, there is another and a very large one from imposts on internal commerce, that is between one department and another. Every article of commerce thus passing from one department to another, provided it has been opened and the bulk broken, is thus taxed. The principal revenue from the *alcaba*, internal duties, thus derived is from the duty on specie. The revenue from duties on internal commerce in 1840, amounted to 4,500,000 dollars. Another fruitful source of revenue is the per centage of the produce of the mines, seignorage, coining, &c. The charges upon money taken from the mines amount to about five per cent, all of which is paid to the departmental government. The general government receives in addition to this about three per cent, which goes to support the College of the Mineria in the city of Mexico."

TOBACCO MONOPOLY.

"The culture of tobacco is prohibited except to a very limited extent in the districts of Orizaba and Cordova. Each farmer is restricted to a limited number of acres. The tobacco produced is sold to the government at a stated price, which was very much below its real value, by whose agents it was made into cigars and snuff, and sold at very large profits. Within the last three years this monopoly was sold by the government to a private company. This company agreed to pay 50,000 dollars per month for this monopoly, which in the time of the vice-regal government yielded the enormous sum of 5,000,000 dollars per annum. This contract has since been rescinded, and the government still possesses the monopoly, which would, if properly managed, and if smuggling could be prevented, produce very nearly as much at this time. But the latter is impossible, and the receipts from this source very little more than cover the expenses of the establishment. At all events the net proceeds do not exceed the sum stipulated to be paid by the company to which it was transferred, that is to say 600,000 dollars per annum."

Mr. Thompson says "a similar sale took place just before I left Mexico of the interest of one-third which the government owned in the Fresnillo Mine, which is at this time the most profitable of all the mines in Mexico. The government derived a revenue of upwards of 500,000 dollars per annum from this mine; it sold the fee-simple for about 400,000 dollars. That is to say, that sum was all which went into the public exchequer—how much more in *gratifications*, I know not; but a very large sum of course. Is it any wonder that officers in the army are forced to sell a certificate of pay due to them, amounting to 2500 dollars, for 125?"

Before the revolution, the King of Spain received, among other ecclesiastical revenues, the ninth part of the tithes, which was granted him by the pope. After the revolution compulsory process for the collection of tithes was abolished, and since that time the government has received nothing from this source, nor of any other revenues which are derived from the church.

There are taxes levied on the cock-pits, the sale of *pulque*, and there is a *monopoly* of

playing cards; and the *ice* is taxed which the Indians bring on their backs in panniers, forty miles from the mountain of Popocatepetl. The revenue from the post-office scarcely pays the expenses.

Mr. Thompson tells us, "Of gunpowder, an immense quantity is used in their civil wars, in the mines, firing cannon on days of religious festivals, and fireworks, for which the Mexicans have a great passion. The powder manufactured is of the most inferior quality; good powder used by sportsmen sells as high as four dollars the pound. This manufacture is also a government monopoly."

"A small amount is realised from the sale of lottery-tickets, raised for special grants to convents and other religious establishments.

"The revenue from the different mints is considerable, but there are no data from which it can be accurately stated.

"The maritime custom-houses in 1832, yielded to the government the sum of 12,000,000 dollars, that is to say, that sum was acknowledged to have been received by the respective custom-house officers; how much more the actual receipts were can only be conjectured. It would, however, be very safe to say at least one-third.

"The receipts at the maritime custom-houses do not now amount to more than 6,000,000 or 7,000,000 dollars. As nothing is more capricious than Mexican legislation on the subject of imports on foreign commerce, it is very difficult to form an estimate approximating accuracy upon this point.

"The following, although not pretending to minute accuracy, may be regarded as in some degree an approximation to a correct estimate of the revenues of the government, and the sources from which they are derived:—

	dollars.
From the maritime custom-houses	6,500,000
Interior commerce	4,500,000
Direct taxes	3,000,000
Per centage on produce of mines	1,000,000
Profits of mints	500,000
Tobacco monopoly	500,000
Post-office, lotteries, manufactures of powder and salt	500,000
Tolls and all other sources	500,000
	<hr/>
	16,000,000

"The local taxes levied by the different departments which may be stated at 4,000,000 dollars more, making an aggregate of 21,000,000 dollars, to which an addition should be made of 5,000,000 or 10,000,000 dollars more which is paid, but embezzled, and, therefore, does not find its way into the public treasury.

"With a government wisely and honestly administered, this sum is more than is necessary. But how that of Mexico is supported with it, and whence it is derived, are both, as I have said, inexplicable to me. Besides their army, of 30,000 to 40,000 men, for that is the number on the pay list, and an immense disproportion of this army officers, not less than from 200 to 300 generals, an otherwise enormous civil list, and the interest on a debt very little short of 100,000,000 dollars, there are a great variety of other and extraordinary charges upon a government so unstable and revolutionary.* With a productive industry at least fifty times as great as that of Mexico, very little more than the sum above stated is levied on the people of the United States. The annual expenditure of the vice-regal government was never more than 8,000,000 dollars. Can it be true that it costs more to execute laws made by the people themselves than the edicts of a despot?

"To all these heavy items must be added the taxes which are levied by the different departments for domestic purposes, the heavy exactions of tithes and other compulsory contributions to the church. These last have been estimated at 2,000,000 dollars, but they must greatly exceed that amount. There are in the city of Mexico alone, 700 or 800 secular, and near 2000 regular clergy. The salaries of some of them are enormous. Under the vice-regal government the various perquisites and salary of the archbishop

* The Report of the Secretary of the Treasury in 1832, contains an estimate of the whole expenses of the government for the next year, amounting to 22,392,508 dollars. Of this sum the estimate for the army is stated at 16,466,121 dollars.

amounted to 130,000 dollars, and those of several of the bishops to 100,000 dollars, but they are all much less now. Exclusively of donations and birth-day presents, which are often very large, the archbishop does not receive more than 30,000 or 40,000 dollars, and the incomes of the bishops are proportionately reduced.

"Some idea may be formed of the amount of these birth-day presents, from the fact that General Santa Anna, on the anniversary of his birth, has been known to receive presents to the amount of 20,000 dollars.

"All these enormous charges are to be paid out of the productions of a country where less is produced than in any other, except from the mines. Perhaps the universal dilapidation of all the old and large estates may indicate the quarter from which much of the revenue has hitherto been derived.

"The large estates and possessions of the banished Jesuits have supplied the government with very large sums. But these, with the mine of Fresnillo, have all been sold and the money wasted."—*Thompson's Recollections of Mexico, 1846.*

Mr. Thompson does not scruple to make the church property of Mexico, subsequent to the paying of the national debt, and contributory to the annual expenditure.

Speaking of the cathedral of Mexico, he says—

"Upon entering it, one is apt to recall the wild fictions of the Arabian Nights; it seems as if the wealth of empires was collected there. The clergy in Mexico do not, for obvious reasons, desire that their wealth should be made known to its full extent; they are, therefore, not disposed to give very full information upon the subject, or to exhibit the gold and silver vessels, vases, precious stones, and other forms of wealth; quite enough is exhibited to strike the beholder with wonder. The first object that presents itself on entering the cathedral is the altar, near the centre of the building; it is made of highly-wrought and highly-polished silver, and covered with a profusion of ornaments of pure gold. On each side of this altar runs a balustrade, enclosing a space about eight feet wide and eighty or a hundred feet long. The balusters are about four feet high, and four inches thick in the largest part; the hand-rail from six to eight inches wide. Upon the top of this hand-rail, at the distance of six or eight feet apart, are human images, beautifully wrought, and about two feet high. *All of these, the balustrade, hand-rail, and images, are made of a compound of gold, silver, and copper—more valuable than silver.* I was told that an offer had been made to take this balustrade, and replace it with another of exactly the same size and workmanship of pure silver, and to give 500,000 dollars besides. There is much more of the same balustrade in other parts of the church; I should think, in all of it, not less than 300 feet.

"As you walk through the building, on either side there are different apartments, all filled, from the floor to the ceiling, with paintings, statues, vases, huge candlesticks, waiters, and a thousand other articles, made of gold or silver. This, too, is only the every day display of articles of least value; the more costly are stored away in chests and closets. What must it be when all these are brought out, with the immense quantities of precious stones which the church is known to possess? And this is only one of the churches of the city of Mexico, where there are between sixty and eighty others, and some of them possessing little less wealth than the cathedral; and it must also be remembered, that all the other large cities, such as Puebla, Guadajara, Guanajuato, Zacatecas, Durango, San Louis, Potosi, have each a proportionate number of equally gorgeous establishments. It would be the wildest and most random conjecture to attempt an estimate of the amount of the precious metals thus withdrawn from the useful purposes of the currency of the world, and wasted in these barbaric ornaments, as incompatible with good taste as they are with the humility which was the most striking feature in the character of the Founder of our religion, whose chosen instruments were the lowly and humble, and who himself regarded as the highest evidence of his divine mission, the fact that 'to the poor the gospel was preached.' *I do not doubt but there is enough of the precious metals in the different churches of Mexico to relieve sensibly the pressure upon the currency of the world, which has resulted from the diminished production of the mines, and the increased quantity which*

has been appropriated to purposes of luxury, and to pay the cost of much more tasteful decorations in architecture and statuary, made of mahogany and marble.

"But the immense wealth which is thus collected in the churches is not by any means all, or even the larger portion, of the wealth of the Mexican church and clergy. They own very many of the finest houses in Mexico and other cities (the rents of which must be enormous), besides valuable real estates all over the republic. *Almost every person leaves a bequest in his will for masses for his soul, which constitute an incumbrance upon the estate, and thus nearly all the estates of the small proprietors are mortgaged to the church. The property held by the church in mortmain is estimated at fifty millions.*

"*Mexico is, I believe, the only country where the church property remains in its untouched entirety.* Some small amount has been recently realised from the sale of the estates of the banished Jesuits ; but, with that exception, no president, however hard pressed (and there is no day in the year that they are not hard pressed), has ever dared to encroach upon that which is regarded consecrated property, with the exception of Gomez Farias, who, in 1834, proposed to the legislative chambers to confiscate all the church property, and the measure would, no doubt, have been adopted, but for a revolution which overthrew the administration.

"But it is impossible that such a state of things can last always. *As a means of raising money, I would not give the single institution of the Catholic religion of masses and indulgences for the benefit of the souls of the dead, for the power of taxation possessed by any government.* No tax-gatherer is required to collect it ; its payment is enforced by all the strongest and best feelings of the human heart. All religions and superstitions have their priesthood and their priestcraft, from the reptile worship of the Nile to our own pure and holy religion ; but of all the artifices of cunning and venality to extort money from credulous weakness, there is none so potential as a mass for the benefit of souls in purgatory. It would seem to be in direct contradiction to the Saviour, in the comparison of the camel passing through the eye of a needle. Nothing is easier than for a rich man to enter the kingdom of heaven ; he purchases that entrance with money. He who can pay for most masses, shortens in proportion the period of his probation of torment in purgatory. Who is it that will not pay his last farthing to relieve the soul of a departed friend from those torments ? I do not know how the fee for these masses is exacted, but I do know that it is regularly paid ; and that without the fee, the mass would be regarded of no value or efficacy. I remember that my washerwoman once asked me to lend her two dollars. I asked her what she wanted with it. She told me that there was a particular mass to be said on that day, which relieved the souls in purgatory from ten thousand years of torment, and that she wished to secure the benefit of it for her mother. I asked her if she was fool enough to believe it. She answered, ' Why, yes, sir, is it not true ? ' and with a countenance of as much surprise as if I had denied that the sun was shining. On a day of religious festival (the anniversary of St. Francisco), I have seen, stuck up on the door of the church of San Francisco—one of the largest and most magnificent in Mexico, a small advertisement, of which the following was the substance :—

"His Holiness the Pope (and certain bishops which were named) have granted thirty-two thousand three hundred years, ten days, and six hours of indulgence* for this mass."

"I do not remember exactly the number of years, days, and hours, but I positively assert that it specified the number of each, and I believe that I have stated them correctly. The manifest object of this minute particularity is to secure the more effectual belief in the imposture. By thus giving to it the air of a business transaction, a sort of contract between the devotee and the Almighty, by his authorised agent and vicegerent on earth, the Pope, is established—a contract the more binding in its character because the receipt of the consideration is acknowledged. I tremble at the apparent blasphemy of even describing such things.

"Mr. Brantz Mayer gives a literal copy of an advertisement which was stuck up in the beautiful church of Gaudeloupe, on the festival of Nuestra Señora de Guadeloupe, of which the following is a translation :—

* An indulgence is defined :—A remission of the punishment due for sins ; a plenary indulgence, is a remission of the whole punishment ; a particular indulgence, a remission of a part only.

"The faithful are reminded that the most illustrious Bishops of Puebla and Tarazona have granted an indulgence of eighty days for every quarter of an hour which the said images are exposed, and five hundred days for each Ave Maria which is recited before either of them. Lastly, the most excellent Fr. Jose Miria de Jesus Belaumzaron, for himself, and for the most illustrious the present Bishops of Puebla, Michoacan, Jolisci, and Durango, has granted an indulgence of two hundred days for every word of the appointed prayers to our most exalted lady, for every step taken in her house, for every reverence performed, and for every word of the mass which may be uttered by the priest or the hearers; as many more days of indulgence are granted for every quarter of an hour in which these images are exposed, in the balconies, windows, or doors, for public adoration."

We have not made these extracts, from the most recent works, with a view of reflecting on the Catholic religion; but in order to exhibit the oppressive and ruinous character and privileges of the church establishment. Hereafter we will show that in Catholic Brazil no such abuses exist in regard to church revenues.

ARMY AND NAVY.

THE will of the army, has actually formed what may be termed the only public opinion in Mexico: for the military commander who has been the most fortunate in obtaining the control over a major part of the army, has been the most successful in carrying out a *pronunciamiento*, and in overturning the government of the day.

The constitution or formation of this army is described by all authorities, and especially by the late American minister, Mr. Thompson, in no favourable character. This army has, to a great degree, been formed and is recruited by sending forth armed detachments into the mountains and wilds to capture the aborigines. These are actually brought in chains to some military head-quarters. Mr. Thompson says:—

"Droves of miserable and more than half-naked wretches are seen chained together and marching through the streets to the barracks, where they are scoured and then dressed in a uniform made of linen cloth or of serge, and are occasionally drilled—which drilling consists mainly in teaching them to march in column through the streets. Their military bands are good, and the men learn to march indifferently well—but only indifferently well—they put their feet down as if they were feeling for the place, and do not step with that jaunty, erect, and graceful air which is so beautiful in well-drilled troops. As to the wheelings of well-trained troops, like the opening and shutting of a gate, or the prompt and exact execution of other evolutions, they know nothing about them. There is not one in ten of these soldiers who has ever seen a gun, nor one in a hundred who has ever fired one before he was brought into the barracks. It is in this way that the ranks of the army are generally filled up—in particular emergencies the prisons are thrown open, *which always contain more prisoners than the army numbers, and these felons become soldiers, and some of them officers.* Their arms, too, are generally worthless English muskets which have been condemned and thrown aside, and are purchased for almost nothing and sold to the Mexican government. Their powder, too, is equally bad; in the last battle between Santa Anna and Bustamente, which lasted the whole day, not one cannon-ball in a thousand reached the enemy—they generally fell

about half-way between the opposing armies. I do not think that the Mexicans are deficient in courage ; or it might be more properly said that they are indifferent to danger or the preservation of a life which is really so worthless to the most of them. But with the disadvantages to which I have adverted, the reader will not be surprised that in all the conflicts with our people, in which they have been more or less engaged for the last thirty years, they have always been defeated."

A Mexican officer, in admitting that cavalry alone were not able to break a well-formed square of infantry, asserted that in this respect the Mexican cavalry had in this the advantage over all others ;—that the cavalry *armed* with lassoes rode up and threw them over the men forming the squares, and pulled them out, and thus made the breach.

"The Mexican army," says Mr. Thompson, "and more particularly their cavalry, may do very well to fight each other, but in any conflict with our own or European troops, it would not be a battle but a massacre. What then must be the murderous inequality between a corps of American cavalry and an equal number of Mexicans? The American corps, from the superior size of their horses, would cover twice as much ground, and the obstruction offered by the Mexicans on their small and scrawny ponies would scarcely cause their horses to stumble in riding over them ; to say nothing of the greater inequality of the men themselves, five to one at least in individual combats, and more than twice that in a battle. The infantry would be found even more impotent."

Mr. Thompson observes that there are in Mexico "more than two hundred generals, most of them without commands. Every officer who commands a regiment has the title of general, and is distinguished from generals who have no commands by the addition of 'general efectivo.' The rate of pay is not very different from that of our own army. Each officer and soldier, however, is his own commissary, no rations being issued ; and they are well satisfied if they receive enough of their pay to procure their scanty rations, which was very rarely the case, except with Santa Anna's favourite troops, whom he always kept about his person, and this made it their interest to sustain him. In one of the last conversations which I had with him, I told him *that the army would remain faithful to him just so long as he could pay them and no longer*, and that I did not see how it was possible for him to pay them much longer.

"The result proved the truth of both predictions, and that, I have no doubt, was the cause of the revolution which overthrew him. Shortly before I left Mexico, an officer in the army came to the city and settled his accounts with the war department, and received a certificate that twenty-five hundred dollars were due to him ; after hawking it about amongst the brokers, he sold the claim for a hundred and twenty-five dollars, which was five cents on the dollar."

He considers that the Mexican men (Indians in particular) have no more physical strength than the women of the United States. They are of diminutive stature, unaccustomed to exercise or labour. Marauding bands of Comanches penetrate several hundred miles into Mexico, levy black mail, carry off horses, cattle, and captives. He says "that there are not at this time (1846) less than 5000 Mexicans slaves of the Comanches, and of all our western tribes are the most cowardly. The Delawares frequently *whip them five to one!*

"That which is in all respects the greatest nuisance and the most insuperable barrier to the prosperity of Mexico is the army. They will tell you there that it amounts to fifty thousand men, but they have never had half the number. I have no doubt that the accounts at the department of war exhibit nearly the number stated, but a large proportion of them are men of straw—fictitious names fraudulently inserted for the benefit of the officers who pay them. They are paid every day, or rather that is the law, but the pay is just as fictitious as the muster-rolls."

Mr. Brantz Mayer gives the following statement of the army of Mexico:—

"I may state that the forces have been considerably augmented and in all probability amount to 40,000 men. In 1840 the Mexican army was composed of

ARMY AND NAVY.	Per Month.	ARMY AND NAVY.	Per Month.
	dollars cts.		dollars cts.
Fourteen generals of division.....	500 00	ACTIVE INFANTRY.	
Twenty-six generals of brigade.....	375 00	Nine regiments. This body differs from the preceding, or permanent infantry, in being liable to service only when required by government; or, in other words, it is a sort of national militia, well drilled. Total number, 16,128.	
ARTILLERY.		PERMANENT CAVALRY.	
Three brigades (on foot).....	225 00	Eight regiments, each regiment composed of two squadrons, each squadron of two companies. Each regiment composed, in all, of 676 men; or the eight, of 4,056, at.....	
One brigade (mounted).....	141 00	Thirty-five separate companies in various places throughout the Republic.	12 50
Five separate companies.....	104 00		
ENGINEER CORPS.		ACTIVE CAVALRY.	
One director-general.....	84 00	Six regiments of four squadrons, each squadron of two companies.	
Three colonels.....	62 00		
Six lieutenant-colonels.....	39 00	NAVY.	
One adjutant.....		The navy of Mexico consists at present of three steam-frigates, two brigs, three schooners, and two gunboats.	
Fourteen captains.....			
Sixteen lieutenants.....			
Ten sub-lieutenants.....			
SAPPERS.			
One battalion.....			
PLANA MAYER DEL EJERCITO.			
This was composed of the general-in-chief and a number of colonels, lieutenants-colonels, captains, &c. &c.			
PERMANENT INFANTRY.			
Eight regiments of two battalions each, each battalion of eight companies, each company of 112 men, officers included—or in all 14,336 persons: each soldier is paid.....	11 92		

MINES AND MINERALS OF MEXICO.

WITH regard to the capabilities and resources of Mexico, the precious metals have at all periods, since the first conquest of the country by Cortez, been the objects of primary avidity with the Spanish rulers and people. They considered gold and silver as the standard of the value of these vast regions; and, they disregarded their really far richer powers of production, those of agriculture. The latter was only attended to with reluctance, and merely from necessity to obtain food.

With the exception of the silver and gold mines, the mineralogy of Mexico has been nearly altogether neglected. Tin, lead, and the finest copper are found in large quantities, but very little of any of these are wrought.

Under the Spanish government of Spain, it is remarked in Thompson's *Alcedo* (1814)—"The mines of Nueva Espana are, at this moment, the most productive of any that were ever worked in any country, at any period of history; and yet the whole number of persons employed in working these mines under ground, does not exceed 30,000, or one two-hundredth part of the whole population of the kingdom. Some of the occupations connected with mining are more laborious, and less favourable to health, than the employments of agriculture; but the choice of such occupations is voluntary, for, in Mexico at least, the labour of the miner is perfectly free, his wages are high, in proportion to the unwholesomeness, disagreeableness, and severity of his work; and he is secure from bad usage, as he is at liberty to quit his master and employment when he pleases, and may hire himself, if he chooses, at another mine. The *micas*

tanda, or forced labour of the Indians, has been abolished in Mexico for at least forty years."

According to Von Humboldt, "The circumstances of the principal Mexican mines are favourable to the health and accommodation of the miners: instead of being situated in barren mountains, adjoining to the limits of perpetual snow, like the mines of Potosí, Pasco, and Chota, in Peru, the richest and most abundant mines of Nueva España are not more than 1700 or 2000 metres above the level of the sea, in the midst of cultivated fields, cities, and villages; affording, in abundance, all that can be wanted for the use of the mine or convenience of the miner. It is accordingly found, that the mortality in the mining districts of Mexico, is not greater than in other parts of the kingdom. An examination of the parish registers of Guanajuato and Zacatecas, which are the seats of the two principal mines of Nueva España, has convinced Mr. Humboldt of this truth; he found, that in Guanajuato the number of births from 1797 to 1802 was, to the number of deaths, as 201 to 100."—[This statement is, with due deference for Von Humboldt, in our opinion, problematical.]

Alcedo continues—"But, if the labour of the mines is not that scourge of humanity, which well-meaning but ill-informed writers have imagined, there can be no doubt of the propriety of stating the increased productiveness of the mines as one of the symptoms of the growing prosperity of the country. An increase of the produce of the precious metals tends, no doubt, to a depreciation of their value; but this objection, which has been urged in Europe, against the further working of the American mines, would apply, with equal force, against the extension of any branch of agriculture or manufactures: every increase of supply tends to diminish the value of the article produced; but the natural corrective of this evil, when it becomes one, is the reduction of profit to the grower or manufacturer, who will abandon his trade or occupation as soon as he finds that he can no longer carry it on with advantage. But so far is the trade of mining from having arrived at this state in America, that at no period since the discovery of that continent, have there been so many opulent individuals engaged in mining, or such quantities of the precious metals extracted annually from the mines. In the kingdom of Nueva España, in particular, the improvement of the mines has been rapid and considerable, as will appear from the following table, which gives the average of the annual coinage of Mexico, during successive periods, from 1732 to near the present time, extracted from the registers of the mint."

AVERAGE of the annual Coinage of Mexico.

Y E A R S.	Silver.	Gold.	TOTAL.
From 1732 to 1742, ten years.....	8,998,209 1-5	434,050 2-5	9,432,259 3-5
1743 to 1752, ten years.....	11,506,030	455,109 9-10	12,951,189 9-10
1753 to 1762, ten years.....	11,971,835 2-5	462,773 1-2	12,434,603 9-10
1763 to 1771, nine years.....	11,777,909 1-8	761,553 1-3	12,539,463 1-3
1772 to 1782, eleven years.....	17,551,906 3-12	835,556	18,387,492 3-11
1783 to 1792, ten years.....	19,491,809 9-10	644,040 3-5	20,135,340 1-2
In 1793	23,428,680	864,363	24,812,943
From 1793 to 1804, ten years.....	21,084,787 3-5		

"The first six rows of figures in the preceding table, are calculated from *data* furnished by the *Mercurio Peruano*, vol. x. p. 133: the seventh is extracted from the same work, vol. xi. p. 13; and the last calculated from a statement furnished by Espinosa, director of the *caja de consolidacion*, or sinking fund at Madrid. As very little bullion was exported from Mexico, the amount of the coinage is, in general, very nearly equal to the amount of the produce of the mines; occasionally, however, it is less. In 1790, 1,500,000 dollars were remitted, in bullion, to the king from Vera Cruz.

"The silver mines of Nueva España, the most productive of any that have ever been known, are remarkable for the poverty of the mineral they contain. A quintal, or 1600 ounces of silver ore, affords, at a medium, not more than three or four ounces of pure silver: the same quantity of mineral, in the silver-mines of Marienberg in Saxony, yields from ten to fifteen ounces. It is not, therefore, the richness of the ore, but its

abundance, and the facility of working it, which render the mines of Nueva Espana so much superior to those of Europe.

"The mines of Guanajuato, infinitely richer than those of Potosi ever were, afforded, from 1796 to 1803, near 40,000,000 of dollars in gold and silver, or very near 5,000,000 of dollars annually; that is, somewhat less than one-fourth of the whole quantity of gold and silver from Nueva Espana; yet these mines, productive as they were, did not employ more than 5000 workmen of every description. The labour of the mines is perfectly free in Mexico, and no species of labour is so well paid; a miner earns from twenty-five to thirty francs a week, that is, from five to five dollars and a half; while the wages of the common labourer are not more than a dollar and a half. The *tenateros*, or persons who carry the ore on their backs from the place where it is dug out of the mine, to the place where it is collected in heaps, receive six francs for a day's work of six hours. No slaves, criminals, or forced labourers, are ever employed in the Mexican mines."—*Alcedo*.

Von Humboldt points out many defects and imperfections in working the mines of Nueva Espana.

"More than three-fourths of the silver obtained from America, is extracted from the ore by means of quicksilver: the loss of quicksilver in this operation, Mr. Humboldt estimates has been about 16,000 quintals a year, and in the whole of America, about 25,000 quintals are annually expended; the cost of which, in the colonies, is 6,200,000 livres. The greater part of this quicksilver has been furnished by the mine of Almaden in Spain, and the residue was obtained from Istria in Carniola; in 1802, Almaden alone supplied more than 20,000 quintals. Huencavelica in Peru, which in the sixteenth century afforded for some years more than 10,000 quintals of quicksilver in a year, did not yield, in 1814, quite 4000. Humboldt seems to be of opinion that there are mines of *cinnabar* in America, sufficient for the purpose; he enumerates several in Nueva Espana and Nueva Granada, as well as in Peru.

"It is the supply of mercury that determines the productiveness of the silver-mines; for such is the abundance of the ore both in Mexico and Peru, that the only limit to the quantity of silver obtained from those kingdoms, is the want of mercury for amalgamation. The sale of quicksilver in the Spanish colonies has been a royal monopoly, and the distribution of it among the miners a source of influence, and possibly of profit, to the servants of the crown. Gulvez, to whom America is indebted for a system of free trade, reduced the price of quicksilver from eighty-two to forty-one dollars the quintal, and thereby contributed most essentially to the subsequent prosperity and increase of the mines."—*Alcedo*.

"The annual produce of the mines of Nueva Espana, as calculated from the amount of the royal duties, up to 1812, and therefore considerably under the truth, amounted to 7000 Spanish marks of pure gold, and 2,250,000 dollars of pure silver; the value, in dollars, of both is 22,170,740; the gold being estimated at 145 $\frac{83}{100}$ dollars, and the silver at $9\frac{4}{10}$ dollars, the Spanish mark; besides this we must add for contraband 829,260 dollars, and the total produce will then be 23,000,000.

TABLE of the Coinage of Mexico, from the earliest Periods to the present Day.

Y E A R S.	Amount.	Y E A R S.	Amount.
	dollars.		dollars.
The mint of the city of Mexico, was established in 1535, but there are no returns for the first 156 years, until 1690. If we take the average of the coinage of these years to have been 1,000,000, we shall have.....	155,000,000	Brought forward.....	1,841,457,875
From 1690 to 1803, inclusive.....	1,833,452,020	From 1824.....	12,048,000
1808 to 1821, ".....	261,254,023	1825.....	12,000,000
1822.....	5,512,234	1826.....	12,000,000
1823.....	2,867,521	1827.....	11,518,000
1824.....	2,881,588	1828 to 1843 (averaging 12,000,000).....	60,000,000
1825.....	6,036,578	To this must be added the coinage of state mints, not included in above:	
1826 to 1831 (on an average 3,000,000 per annum).....	15,000,000	Guanajuato, from 1812 to 1826.....	2,094,194
1831.....	13,000,000	Zacatecas, " 1810 to 1826.....	22,108,158
1832.....	13,500,000	Guadalajara " 1813 to 1826.....	8,669,168
1833.....	13,500,000	Durango " 1811 to 1826.....	7,483,036
		Chihuahua " 1811 to 1814.....	3,063,060
Carried forward.....	1,841,457,875	Sombrerete " 1810 to 1811.....	1,561,949
		All of these for the five years (after 1826), since which they have been calculated in the general coinage.....	60,000,000
		Total.....	2,068,507,948

This amount is less than it has been made by several other writers. See also "General Account of Precious Metals, and of the Coinage of Mexico and of South America."

COMPARISON of the Coinage of Gold and Silver in the Mints of the Mexican Republic, in the Years 1844 and 1845, forwarded by the British Consul.

MINTS OF	Years.	G O L D .			S I L V E R .			T O T A L .		
		Value.	Increase.	Decrease.	Value.	Increase.	Decrease.	Value.	Increase.	Decrease.
Mexico.....	1844	32,172	..	..	1,688,156	..	..	1,720,328	..	..
	1845	40,560	8,088	..	2,184,303	496,147	..	2,225,163	504,835	..
Zacatecas.....	1844	..	..	..	4,429,353	..	..	4,429,353	..	..
	1845	..	..	..	4,435,576	6,223	..	4,435,576	6,223	..
Guanajuato.....	1844	441,840	..	..	4,193,900	..	..	4,635,740	..	..
	1845	345,172	..	96,668	4,040,530	..	153,870	4,385,702	..	250,038
Durango.....	1844	46,528	..	..	223,652	..	..	270,180	..	..
	1845	43,732	..	2,796	600,608	376,956	..	644,340	374,160	..
Chihuahua.....	1844	105,840	..	..	315,224	..	..	421,064	..	..
	1845	128,000	22,160	..	410,000	94,770	..	538,000	116,936	..
San Luis.....	1844	..	..	..	889,431	..	..	889,439	..	..
	1845	..	..	..	1,194,917	305,478	..	1,194,917	305,478	..
Guadalupe.....	1844	5,368	..	..	850,031	..	..	955,399	..	..
	1845	7,841	2,480	..	803,437	..	146,594	811,285	..	144,114
Guadalupe, of Calvo.....	1844	93,004	..	..	338,124	..	..	433,138	..	..
" "	1845	..	..	..	..	..	..	900,833	473,705	..
Total.....	..	..	..	..	..	..	..	..	1,781,337	394,132
					dollars.				£	s. d.
Total coinage, in 1844					13,754,631					
in 1845					15,141,816					
Increase, " in 1845					1,387,185 - 248,537	6	8			

AGRICULTURE OF MEXICO.

It will appear, from the miscellaneous descriptive sketches which we have given of Mexico—and nearly all accounts corroborate the fact, that agriculture is in a most rude and most backward condition throughout nearly all Mexico. Prohibition of foreign agricultural products has been persevered in, but husbandry has not improved. Cotton-wool is prohibited: the climate and soil is favourable to its culture, but enough is not produced to supply the demand for the miserable cotton factories of the country; although cotton-wool sells for treble price at which it could be imported from the United States of America.

One cause of slovenly agriculture, and of the indolence of the rural population, is the facility of obtaining sufficient food from the natural products of the soil.* We believe that the mines of precious metals are to some extent another cause: high authorities deny this.

* In his account of the agriculture of Mexico, Von Humboldt enters into many curious and interesting details concerning the origin, natural history, and cultivation of the different vegetable productions of that country.

Of all productions cultivated for the use of man, none affords so much food from the same quantity of land as the plantain or banana tree: a field of 100 square metres in plantain trees affords 4000 lbs. weight of food; the same field in wheat will produce about thirty lbs.; and in potatoes ninety lbs. The quantity of food from the plantain tree is, according to Von Humboldt, to the quantity of food from wheat as 183 to one, and to the quantity from potatoes as forty-four to one; the quantities of nourishment, however, are not proportioned to the weights, for the fruit

The assertion that the backwardness of agriculture in Spanish America has been owing to its mines of gold and silver, has been refuted by Humboldt; he admits, "that in some districts, as in Choco and other parts of New Grenada, the people leave their fields uncultivated, while they misspend their time in searching for gold dust in the beds of rivers. It is also true, that in Cuba, Caracas, and Guatemala, where there are no mines, many highly cultivated tracts of country are to be found; but, on the other hand, the agriculture of Peru is not inferior to that of Cumana or Guayana; and in Mexico, the best cultivated district is the territory extending from Salamanca to Guanaxuato and Leon, in the midst of the most productive mine of the world. So far from the mining being prejudicial to agriculture, no sooner is a mine discovered and wrought, than cultivation is seen in its neighbourhood; towns and villages are built; provisions are wanted for the workmen, and subsistence for the cattle employed in the mine: whatever the surrounding country can be made to produce, is raised from it in abundance. A flourishing agriculture is established, which not unfrequently survives the prosperity of the mines, to which it was indebted for its origin; the husbandman remains and cultivates his fields, after the miner, who had at first set him to work, is gone to another district, in search of a more abundant or less exhausted vein. The Indians, in particular, who prefer a mountainous situation to living on the plains, seldom quit the farms they have established, though the mines are abandoned, which were, perhaps, their original inducement for settling there. Indian villages and farms are continually found in the valleys, and amidst the precipices of the highest mountains."—Humboldt. *Alcedo.*

Notwithstanding the authority of M. Von Humboldt, it is considered that, generally speaking, agriculture is in a very backward condition.—(See Mayer, Gilliam, and other recent authorities.)*

PRINCIPAL ARTICLES OF CULTURE.—The same soil and climate which produces the plantain tree, yields the *farina* of the cassava root, called *manioc*, which is made into bread; and which the natives call *pan de tierra caliente*. The flour of manioc, when dried and toasted, is secure from the depredations of worms and other insects: it contains, besides

of the plantain tree contains a greater portion of mucilaginous juice than the seeds of the *cerealia*. An *arpent*, covered with plantain trees, will maintain fifty persons: the same quantity of ground sown with wheat, will not, he contends, support two individuals. The plantain tree does not thrive where the medium temperature is below 24 deg. (centigr. therm., or 75 2 deg. F.), but there are 60,000 square leagues of the Mexican territory in that situation. The fruit of the plantain tree is farinaceous, but contains a small portion of vegetable gluten, and a great quantity of saccharine matter. Mr. Humboldt remarks, that in all tropical countries, saccharine matter is considered to be eminently nutritious.

* "Mexico," says Chevalier, "is a country so rich that famine scarcely visits even the most indolent. In the *tierras calientes*, and even on the *plateau*, the natives are content to dwell with their families in a cabin of bamboo trellis-work, so slight as scarcely to hide them from the stranger's gaze, and to sleep either on mere mats or at best on beds made of leaves and brushwood. Their dress consists simply of a pair of drawers, or petticoat, and a serape (a dyed woollen garment) which serves for a cloak by day and a counterpane by night. Each has his horse, a sorry beast, which feeds at large in the open country, and a whole family of Indians is amply supplied with food by bananas, chili, and maize, raised almost without labour, in a small inclosure round the hut. Labour, indeed, occupies but a trifling portion of the Indian's time, which is chiefly spent in drinking pulque, sleep, or singing to his wretched mandolin hymns in honor of Notre Dame de Gaudaloupe, and occasionally carrying votive chaplets to deck the altar of his village church. Thus he passes his life in a dreamy indifference, and utterly careless of the ever-reviving émeutes by which the peace of Mexico is disturbed. The assassinations and robberies which the almost impotent government allows to be committed with impunity on the public roads, and even in sight of the capital, are to him only matter for conversation—the theme of a tale or ditty. And why should he trouble himself about it? Having nothing in the world but the dress in which he stands, his lance, spurs, and guitar, he has no fear of thieves; nor will the poniard of the assassin touch him, if he himself, drunk with pulque or chingarito, do not use his own."

farinaceous *secula*, a saccharine matter and a viscous substance resembling caoutchouc. The cassava root is not cultivated in New Spain at a greater height than 600 or 800 metres above the level of the sea; its poisonous juice becomes harmless by boiling, and separating the scum that rises to the top, and is then used by the natives for seasoning their food. The original inhabitants of Hayti, after the conquest of their country by the Spaniards, used to poison themselves with this juice, and for that purpose assembled in parties of fifty or more to take it together.

MAIZE is the chief food of the inhabitants of Mexico: it is cultivated from the coast to the height of 2800 metres above the sea; in very fertile lands, and in very good years, it gives a return of 800 to one; but the average return for the *intra-tropical* part of the country is not more than 150 for one; in very hot and moist districts two or three crops are obtained in the year, but in most parts of the country only one is grown. No crop is more uncertain than maize, and as it is seldom equally good in every part of the kingdom, the transport of maize comes to be the principal branch of internal commerce; a general failure of the crop would be followed by scarcity, or even famine. The annual produce of maize was estimated by Humboldt at 17,000,000 of *fanegas* annually. It may be preserved for three years at Mexico, and in colder climates for six or seven years. The Indians prepare a fermented liquor from maize, and before the arrival of the Spaniards, they extracted sugar from the stalks.

WHEAT.—None of the *cerealia* of the old continent were known in America when it was first discovered. Wheat is not cultivated in the intra-tropical part of Mexico, at a lower elevation than 800 or 900 metres above the level of the sea, and in very small quantity at a less height than 1200 or 1300. At a greater elevation than 3500 or 4000 metres, neither wheat nor rye come to maturity. The Mexican wheat is of excellent quality, and the medium return wherever grown is from twenty-two to twenty-five for one: in some places it gives from thirty to forty for one. Much wheat has been exported from Vera Cruz to Cuba: barley and rye thrive very well in parts of Mexico; oats are very little cultivated; the potato is a great object of culture in the high and cold parts of the country: rice is but little attended to, though well adapted for the marshy lands along the sea coast.

VINEYARDS.—The Spanish government has always discouraged in its colonies the cultivation of the vine, the olive, the mulberry tree, and the plants yielding hemp and flax. While Humboldt was in Mexico, an order came from Madrid to grub up all the stocks of vines in the north part of the country, where they had been cultivated with so much success as to call forth the complaints of the wine merchants of Cadiz. There was then but one olive plantation in Mexico: it belonged to the archbishop of Mexico; tobacco was also subjected, and continues to be subjected to monopoly. In 1764, a royal monopoly was established, and no tobacco was allowed to be planted, except in particular districts, and none sold, except to the king's officers. Parties of soldiers have been regularly employed to go about the country in search of tobacco-fields, and impose fines on the owner of prohibited culture, and destroy the plantation: this odious monopoly yielded to the King of Spain, in Mexico alone, a revenue of more than 20,000,000 of livres annually.

AGAVE, OR MAGUEY.—The plantations of the *maguey de pulque* extend wherever the Aztec language is spoken. On the Mexican plain the maguey is scarcely cultivated to the north of Salamanca. The finest cultivations are in the valley of Toluca and on the plains of Cholula. The agaves are there planted in rows at a distance of fifteen decimetres, or fifty-eight inches, from one another. The plants only begin to yield the juice or sap, when the *hampe* is on the point of efflorescence. The cultivator goes daily through his *gave* plantations to mark those plants which approach efflorescence.

On the situation, on the soil, and on the temperature of the climate, depend the early or later periods of efflorescence. Near Cholula, and between Toluca and Cacanumacan, a maguey of eight years old gives signs of development of its *hampe*. They then begin to collect the juice, of which the *pulque* is made. They cut the *corason* or bundle of central leaves, and enlarge insensibly the incision, and cover it with lateral

leaves, which they raise up by drawing them close, and tying them to the extremities. In this incision the vessels appear to deposit all the juice which would have formed the *colossal hampe* loaded with flowers.

"This is a true vegetable spring, which keeps running for two or three months, and from which the Indian draws three or four times a day. We may judge of the quickness or slowness of the motion of the juice by the quantity of honey extracted from the maguey at different times of the day. A foot commonly yields, in twenty-four hours, four cubic decimetres, or 200 cubic inches (242 cubic inches English), equal to eight *quartillos*. Of this total quantity they obtain three quartillos at sunrise, two at mid-day, and three at six in the evening. A very vigorous plant sometimes yields fifteen quartillos, or 375 cubic inches (454 cubic inches English) per day, for from four to five months, which amounts to the enormous volume of more than 1100 cubic decimetres, or 67,130 cubic inches. This abundance of juice produced by a maguey of scarcely a metre and a half in height, or $4\frac{9}{10}$ feet, is so much the more astonishing, as the agave plantations are in the most arid grounds, and frequently on banks of rocks hardly covered with vegetable earth. The value of a maguey plant near its efflorescence is at Pachuca five piastres, or 1*l.* 2*s.* 4*d.* In a barren soil the Indian calculates the produce of each maguey at 150 bottles, and the value of the pulque furnished in a day at from ten to twelve sols. The produce is unequal, like that of the vine, which varies very much in its quantity of grapes.

"The cultivation of the agave has real advantages over the cultivation of maize, grain, and potatoes. This plant, with firm and vigorous leaves, is neither affected by drought nor hail, nor the excessive cold which prevails in winter on the higher *Cordilleras* of Mexico. The stalk perishes after efflorescence. If we deprive it of the central leaves, it withers, after the juice which nature appears to have destined to the increase of the hampe is entirely exhausted. An infinity of shoots then spring from the root of the decayed plant; for no plant multiplies with greater facility. An arpent of ground contains from 1200 to 1300 maguey plants. If the field is of old cultivation, we may calculate that a twelfth or fourteenth of these plants yields honey annually. A proprietor who plants from 30,000 to 40,000 maguey is sure to establish the fortune of his children; but it requires patience and courage to follow a species of cultivation which only begins to grow lucrative at the end of fifteen years. In a good soil the agave enters on its efflorescence at the end of five years; and in a poor soil no harvest can be expected in less than eighteen years. Although the rapidity of the vegetation is of the utmost consequence for the Mexican cultivators, they never attempt artificially to accelerate the development of the hampe by mutilating the roots or watering them with warm water. It has been discovered that by these means, which weaken the plant, the confluence of juice towards the centre is sensibly diminished. A maguey plant is destroyed, if, misled by false appearances, the Indian makes the incision long before the flowers would have maturely developed themselves."—*Thompson's Alcedo*.

"The juice of the agave is of a very agreeable sour taste. It easily ferments, on account of the sugar and mucilage which it contains. To accelerate the fermentation, they add a little old and acid pulque. The operation is terminated in three or four days. The vinous beverage, which resembles cider, has an odour of putrid meat extremely disagreeable; but the Europeans who have been able to get over the aversion which this fetid odour inspires, prefer the pulque to every other liquor. They consider it as stomachic, strengthening, and especially as very nutritive; and it is recommended to lean persons. Whites also who have been known, like the Mexican Indians, totally to have abstained from water, beer, and wine, and to have drunk no other liquor than the juice of the agave. Connoisseurs speak with enthusiasm of the pulque prepared in the village of Hocotitlan, situated to the north of Toluca, at the foot of a mountain almost as elevated as the Nevado of this name. They affirm that the excellent quality of this pulque does not altogether depend on the art with which the liquor is prepared, but also on a taste of the soil communicated to the juice, according to the fields in which the plant is cultivated. There are plantations of maguey near Hocotitlan (*haciendas de pulque*) which bring in annually more than 40,000 livres, or 1666*l.* sterling."—*Alcedo. Humboldt*.

A strong spirit is distilled from the pulque, called *mexical*, or *aguardiente*
2 L 2

de maguey. The sugar-cane of a particular variety, with a violet-stalk, originally from the coast of Africa (*cano de Guinea*), is preferred in the province of Caracas for the fabrication of rum to the sugar-cane of Otaheite. The Spanish government, and particularly the *real hacienda*, prohibited the distillation of *mexical*, as prejudicial to the Spanish brandy trade. An enormous quantity, however, of this maguey spirit was clandestinely manufactured in the intendances of Valladolid, Mexico, and Durango, and especially in Leon.

The fibre of the maguey is formed into flax, and of it is also made the papyrus (*cyperus papyrus* of the Egyptians). The paper on which the ancient Mexicans painted their hieroglyphical figures was made of the fibres of agave leaves, cleansed in water, and disposed in layers like the fibres of the Egyptian cyperus, and the mulberry (*brousonnetia*) of the South Sea Islands. Humboldt brought to Europe several fragments of Aztec manuscripts written on maguey paper, so varied in thickness that some resembled pasteboard, others Chinese paper. These fragments were interesting as the Mexican hieroglyphics deposited at Vienna, Rome, and Veletri, are on *Mexican stag-skins*. The thread of maguey flax is called *pita-thread*.

The Mexicans cultivate all the garden-stuffs and fruit-trees of Europe.* The Aztecs and some other nations of Americans cultivated onions (in Mexican *xonacatl*), haricots (in Mexican *ayacotti*, in the Peruvian or Quichua language *purutu*), and gourds (in Peruvian *capallu*). Cortes, speaking of the eatables which were daily sold in the market of the ancient Tenochtitlan, expressly says, that every kind of garden-stuff (*legume*) was to be found there, particularly onions, leeks, garlic, garden and water-cresses (*mastuerzo y berro*), borrage, sorrel, and artichokes (*cardo y tagarninas*). It would appear that no species of cabbage or turnip (*brassica et raphanus*) was cultivated in America.

Great numbers of farinaceous roots were also cultivated in Mexico and Peru.

The central table-land of Yutos produces in great abundance cherries, prunes, peaches, apricots, figs, grapes, melons, apples, and pears. In the environs of Mexico the villages and gardens yield in the months of June, July, and August fruit of most exquisite flavour, although the trees are in general very ill taken care of. In

* Mr. Waddy Thomson, alluding to fruits and vegetables, says "The apples and peaches of Mexico are not good, the latter decidedly inferior. The pears are very fine. They have one species of this fruit which is decidedly the best that I have ever seen; it is nearly the size of a goose-egg, and its flavour as delicious as that of the famous Philadelphia pear. All the fruits of the tropics—the orange, pine-apple, banana, mango, cherimoya, and last and least in size, but most exquisite in flavour, *the tuna*—are produced in Mexico to great perfection. It is the produce of one of the infinite varieties of cactus, of which I have seen twenty different varieties growing on an acre of land. One of these varieties runs up to the height of thirty or forty feet, in the form of a beautifully fluted column, and is used to enclose gardens, by planting close together. That which produces the tuna grows to the height of thirty feet, and covers an area of twenty feet in circumference, with the leaves (if leaves they may be called) dropping over each other like the shingles of a house. These leaves are exactly like those of the prickly pear on our mountains, only larger, generally of twelve or eighteen inches in breadth. The fruit is about the size, and very much the shape, of a duck's egg. The combined flavours of a water melon, a cucumber, and a lump of sugar-candy, will give some idea of this delicious and refreshing fruit, as it melts in the mouth. The cherimoya is a large fruit, and is altogether delicious. The idea which occurs to every one on eating it for the first time is, that it is a vegetable custard. I scarcely ever offered it to an American who did not make that comparison, thinking that he had said an original and smart thing; but I had heard it before at least a hundred times. They have a fruit very much like what we call the 'May-apple.'"

Mexico, Peru, and New Granada are found both the fruits of temperate Europe, and ananas, different species of *passiflora* and tacsonia, sapotes, mameis, goyavas, anonas, chilimoyas, and other rich productions of the torrid zone. The ecclesiastics, and especially the missionaries, contributed greatly to the early introduction of European fruits and vegetables. The gardens of the convents and of the secular priests were, in fact, nurseries, from which the recently imported vegetables were diffused over the country.

Bees'-wax is an article produced in great quantities. In the churches wax candles are perpetually burning, and are also used in processions.

Sugar was formerly an important article of production. The cane is cultivated in many districts. But, although it has been proved that it can be produced cheaper than by slave labour in Cuba, yet no great efforts are made to cultivate the sugar cane as an important branch of industry. It succeeds very well in most of the countries south of twenty-eight degrees. The most productive plantations are on the declivities of the table land, and in the lower plains, to the height of 5400 feet above the sea; but in many places well sheltered the sugar cane grows at an elevation of nearly 7000 feet. These plantations are most numerous in the valley of the Rio Santiago, and on the plains towards the Pacific. Their produce is very considerable, but nearly the whole of the sugar is consumed in the country.

From Vera Cruz there was exported annually more than half a million of arrobas of sugar, and M. Humboldt estimated the domestic consumption in Mexico at more than twice as much. Cuba, he says, in 1803 exported 2,576,000 arrobas of sugar, and used for her internal consumption 440,000 more. The export of sugar from the Havannah, from 1801 to 1810 inclusive, averaged 2,850,000 arrobas, or about 644,000 cwt. a year. Cotton, indigo, coffee, and cacao, have never been cultivated to any great extent in New Spain; though the Mexicans, like all other Spaniards, are great consumers of chocolate. Humboldt ascertained the quantity of cacao exported annually from the Spanish settlements, from 1799 to 1803, to be as follows;—from Venezuela and Maracaybo, 145,000 fanegas; from Cumana, 18,000; from New Barcelona, 5000; and from Guyaquil, 600,000; total, 228,000. But he omitted the delicate cacao of Guatemala. The vanilla sent to Europe was nearly all from the provinces of Oaxaca and Vera Cruz. Great care is required in drying this plant. Cochineal was formerly a production cultivated only in Mexico. Oaxaca furnished annually 32,000 arrobas of cochineal, valued at 2,400,000 dollars.

Very little silk is produced in Mexico; a company has lately been formed in order to cultivate the mulberry and breed silk-worms.

The annual produce of agriculture of New Spain was valued by Humboldt at 29,000,000 of dollars. This, like nearly all other estimates respecting this country, must be considered vague.

Of the obstacles to the improvement of agriculture, the excessive dryness of the climate is in many parts almost insuperable. Even the want of moisture in the ground, is usually attributed to the Spaniards, who cut down the forests in the interior of the country, and exposed the soil to the stronger action of the rays of the sun, which caused extraordinary evaporation. The extensive landed properties possessed by a few persons, held under all the strictness of Spanish entails, and the extensive tracts of country possessed in common, and therefore ill-cultivated and neglected, have been, and to a great degree continue to be, notwithstanding the rights of primogeniture have been abolished, the great impediments, coupled with indolence, to the successful cultivation of the soil.

Mr. Thompson informs us,—

"The immense estates of which I have spoken, of eighty and a hundred leagues square, with eighty or a hundred thousand cattle, and fifteen or twenty thousand mules and horses, yield very little profit. Perhaps not one acre out of ten thousand on these estates is cultivated. The grass is green all the year round, and their horses and cattle receive and seem to require no other food; they multiply as the birds do, and with little more profit to the proprietors of the estates. Now and then, the government purchases five hundred or a thousand horses for the army, but, with this exception, there are very few occasions when they can be sold. The average price for droves of unbroken horses is eight or ten dollars a head, and mules the same. The mules are generally small, but by no means too small for any service, nor smaller than those frequently used in this country. I have seen mules, however, in Mexico, as large as any I have ever seen elsewhere. The most of these are brought from California, and other departments north of Mexico; a pair of these large mules will sell for a thousand dollars, and that sum has frequently been paid, for one fine saddle mule.

"In the villages the houses are generally small filthy hovels of ten or twelve feet square, built of unburnt bricks, with a small enclosure, in which the chili (red pepper), and a small patch of Indian corn for tortillas is cultivated. A Mexican village very closely resembles an American Indian village, with the difference that the Mexican hovels are built of brick instead of being log-cabins. The same idleness, filth, and squalid poverty are apparent.

"The road, for its entire extent from Vera Cruz to Jalapa, passes through the lands of General Santa Anna, which extend an immense distance on both sides of it: much of this land is of good quality, and would produce cotton and sugar most profitably. Very little of it is in cultivation, with the trifling exception of the chili and corn patches. General Santa Anna owns immense herds of cattle, some forty or fifty thousand head, which graze upon it. He also permits others to graze their cattle upon his lands for a rent which they pay him; I believe, forty dollars per annum for a hundred head.

"The system of agriculture in Mexico is, like every thing else, so wretchedly bad, that it is impossible to form any accurate opinion of the productiveness of the soil, the more especially as, on the whole route from Vera Cruz to Mexico, with the exception of a very few places, and for very short distances, there are no trees nor other natural growth but a few scrubby bushes, some palms, and the almost innumerable varieties of the cactus. The whole country is of manifestly volcanic formation, at least the upper strata. I have never been at any place where some species of lava was not presented, and in infinite varieties, some having very much the resemblance of cinders just taken from an iron furnace; others so entirely petrified, as to have little of the appearance of lava, except by their porousness. The soil is generally, I think, not very rich. In many places, such as the plain of which I have been speaking, the land is very good; nowhere, however, to be compared with our richest oak and hickory lands. The plough in universal use is that used two thousand years ago; neither more nor less than a wooden

wedge, without a particle of iron attached to it. The hoe is a wooden staff, with an iron spike in the end. What is still more remarkable, the only animal used in ploughing is the ox; a planter, with twenty thousand horses and mules (by no means an unusual number), will only use his oxen in the plough. If you ask why this is, the only answer I can give is, that the Spaniard never changes his habits, nor any thing else but his government. All the passion for change which exists in other men, with him is concentrated in political changes.

"It is this peculiar characteristic which has tended more than any and every other cause to produce the present degraded condition of Spain.

"As you approach the city of Puebla, there are farms of considerable extent on both sides of the road. The grains chiefly cultivated are wheat, barley, and Indian corn. The wheat is used for bread by the better classes, and I have never seen better bread anywhere. The Indian corn is used chiefly, I believe entirely, by the Mexicans in making tortillas. There is not a corn-mill in Mexico. The tortilla is the bread, and the only bread of the great mass of the people. The grain is softened by soaking it in water, it is then ground on a smooth stone, with a long roller made also of stone; and after mixing the due proportion—which is always a very large proportion of chili and some lime, it is spread out in a thin layer, and cooked as we do the hoe cake. Corn is not used at all as food for horses; the only grain used for that purpose is barley, and the only fodder is wheat straw—an article generally regarded by us as of little or no value for food. In this, I am satisfied that we are mistaken. I had a very large pair of American horses, and I was at first afraid that, however well the barley and wheat straw might agree with the Mexican horses, it was not substantial enough for mine. But I found that they became so fat upon it that I was obliged to curtail their allowance."

The wages of labour in New Spain are stated in Thompson's *Alcedo* to be $2\frac{1}{2}$ *reals de plata* a day, on the coast, and two *reals de plata*, or one-fourth of a dollar, on the table-land. This is only a vague estimate. Mr. Thompson considers the condition of the labourer as worse than that of the slave in the United States.* The average price of maize on the table-land, where it is the prin-

* The late minister of the United States at Mexico tells us: "There are a good many negroes in Vera Cruz; more probably than in any other part of Mexico. I did not see half-a-dozen negroes in the city of Mexico, in a residence there of two years, and very few mulattoes. It is a very great mistake to suppose they enjoy any thing like social equality even with the Indian population; and although there are no political distinctions, the aristocracy of colour is quite as great in Mexico as it is in this country; and the pure Castilian is quite as proud that he is a man without 'a cross,' as was *old Leatherstocking*, even if that cross should have been with the Indian race, however remote. The negro in Mexico, as everywhere else, is looked upon as belonging to a class a little lower than the lowest. . . the same lazy, filthy, and vicious creatures that they inevitably become where they are not held in bondage. *Bondage or barbarism seems to be their destiny*—a destiny from which the Ethiopian race has furnished no exception in any country for a period of time long enough to constitute an epoch. The only idea of the free negro of liberty in Mexico, or elsewhere, is exemption from labour, and the privilege to be idle, vicious, and dishonest; as to the mere sentiments of liberty, and the elevating consciousness of equality, they are incapable of the former; and, for the latter, no such equality ever did or ever will exist. There is a line which cannot be passed by any degree of talent, virtue, or accomplishment. The greater the degree of these, which, in rare individual instances, may exist, and the nearer their possessors may approach this impassable barrier, they are only the more miserable. This may be called prejudice, but it is a prejudice which exists wherever the Caucasian race is found; and nowhere is it stronger than in Mexico. The negro is regarded and treated there as belonging to a degraded caste equally as in the United States, much more so than in South Carolina, and in quite as great a degree as in Boston or Philadelphia.

"*Servitude*.—Whilst upon this subject it may not be inappropriate to allude to the system of servitude which prevails in Mexico—a system immeasurably worse for the slave, in every aspect, than the institution of slavery in the United States. The owners of the estates (haciendas) receive labourers into their service. These labourers are ignorant, destitute, half-naked Indians; certain wages are agreed upon, which the employer pays in food, raiment, and such articles as are absolutely necessary; an account is kept of all these things, and neither the labourer nor his family can

cipal food of the people, was estimated by Humboldt at five livres the fanega. The fanega is somewhat more than a bushel and a half. The ordinary price paid for wheat upon the farm, in New Spain, is about four or five dollars the carga or mule load, which weighs 150 kilograms; but the expense of carriage raises it in the city of Mexico to nine or ten dollars; the extreme prices being eight and fifteen. Mr. Ward states the prices more precisely, and says wheat is nearly twice as dear in the city of Mexico as it is in Paris; but wheat is not so much an article of the first necessity in Mexico as in France.

PRICES of Provisions, &c., to Housekeepers in the City of Mexico, as stated by Mr. Mayer.

PROVISIONS, &c.	Quantities and Prices.	PROVISIONS, &c.	Quantities and Prices.
MEATS.		Fruits—(continued.)	
Beef.....	12½ cents per 20 ounces.	Plantains.....	6½ cents for four.
Mutton.....	12½ " " 18 "	Grapes.....	6½ " per lb.
Hams.....	50 " " lb.	Walnuts.....	6½ " for forty.
Ducks.....	37½ " pair.	Melons.....	6½ to 12½ cents each.
Turkeys.....	1 dlr. 50 " for each.	Avocates.....	6½ cents for four.
Fowls.....	50 " "	A; plesa.....	6½ " per dozen.
Pigeons.....	25 " per pair.	Tunas.....	6½ " "
FISH.		Lemons.....	6½ " "
Pescado-blanco, from the lake	62½ cents per lb.	Guayavas.....	6½ " for eight.
VEGETABLES, TEA, COFFEE, &c.		Granaditas.....	6½ " four.
Onions.....	12½ cents per dozen.	DRINKS.	
Artichokes.....	25 " "	Milk.....	6½ cents per quart.
Cauliflowers.....	12½ " each (small).	Pulqué.....	6½ " 3 quarts.
Cabbages.....	12½ to 25 cents each.	Water.....	6½ " barrel.
Peas.....	25 cents per pint.	Aguardiente.....	18½ " quart.
Corn.....	5 to 6 dls. per cargo of 400 lbs.	Mescal.....	25 " "
Barley.....	3 dls. "	Chicha.....	6½ " 3 pints.
Rice.....	12½ cents per lb. "	Orgeat.....	6½ " quart.
Radishes.....	6½ " " 2½ dozen.	Aqua de chia.....	6½ " " "
Potatoes.....	12½ " quart.	FUEL.	
Beans (frijoles)	12½ " " lb.	Charcoal.....	6½ cents for 6 lbs.
Chilié peppers.....	3½ " " dozen.	SERVANTS.	
Tomatoes.....	12½ " " for four small	Cook.....	4 to 6 dollars per month.
Bread.....	loaves, sixteen ounces in all.	Coachman.....	15 " 20 " " "
Biscuits.....	6½ cents per 16 ounces.	Waiter.....	15 " " " "
Chocolate.....	50 " " lb.	Housekeeper.....	8 " 10 " " "
Tea.....	2 to 3 dollars per lb.	Chambermaid.....	8 " 4 " " "
Coffee.....	25 to 37½ cents per lb.	Scullion.....	8 " 4 " " "
Sugar (refined).....	18½ cents per lb.	RENTS.	
" (white).....	12½ " " "	They vary according to	
FRUITS.		situation, but they are	
Pines.....	12½ cents each.	very high throughout the	
Chirimoyas.....	6½ to 12½ cents each.	capital; 500 dollars, 2500	
Peaches.....	6½ cents for four.	dollars, and even higher	
Oranges.....	6½ " six.	rates, are given for the	
		very best.	

ever leave the estate until all arrearages are paid. These, of course, he has no means of paying but by the proceeds of his labour, which being barely sufficient for his subsistence, he never can get free; and he is not only a slave for life, but his children after him, unless the employer chooses to release him from his service, which he often finds it convenient to do when the labourer becomes old or diseased. Whatever may be the theoretical protection from corporal punishment which the law affords him, the Mexican slave is, practically, no better off in this respect than is the African slave in this country. All the labourers in Mexico are Indians; all the large proprietors Spaniards, or of mixed blood. I say all; there may be a few exceptions, but they are very few of either. So of the army; the higher officers are all white men, or of mixed blood, the soldiers all Indians."

M A N U F A C T U R E S .

SPAIN prohibited, but was unable altogether to prevent manufacturing industry in her colonies. The great extent, and populousness, of her foreign possessions,—the remoteness of the principal settlements from the coast,—the difficulty of transporting bulky commodities over the interior of America,—the want of industry and commercial enterprise in her subjects at home,—the almost exclusive attention of her government to the acquisition of the precious metals,—and the Spanish indifference, and ignorant contempt, for other sources of opulence,—all contributed to bring forward some fabrics in Mexico. Spain, it is true, recognised the existence of a few branches of manufacturing industry in her colonies,—but the policy was to sacrifice those at any time to the real, or supposed, interests of the mother country. About the middle of the eighteenth century an extensive plan for the establishment of European manufactures at Quito was proposed to the Spanish ministry, and undertaken with their consent and apparent approbation, but was defeated by secret instructions given to their agents in America; and in 1801 the manufactory of *Indian chintz* in Mexico was prohibited, lest it should interfere with the cotton manufactures of the peninsula. It must not, however, be forgotten that this was also the avowed policy of England; and that even Lord Chatham was its champion.* But neither the governments of England, nor of Spain, could prevent the colonies from manufacturing certain necessary articles.

The chief manufactures of Mexico under the Spanish government up to 1807 were woollens, cottons, gold and silver lace, hats, leather, soap, and earthenware; but the total value of the goods which they produced, according to Humboldt, was not more than 7,000,000 or 8,000,000 of dollars annually. Some trifling fabrics of silk were introduced since that time; and the manufactures increased considerably in consequence of the war with England and the interruption of

* Lord Chatham declared that he would not, if he could prevent them, allow the colonies to manufacture a horse-shoe nail. Mr. Thompson says, "The mechanical arts are in a low condition. Most of the articles of every description which are used there are brought from other countries, with the exception of plate, saddles, and a few others. Large quantities of plate are manufactured both for churches and individuals. I never saw a handsome piece, however, which was made there. They say that the saddlers of no other country can make a Mexican saddle. I do not think any decent saddler would if he could. There are two articles, however, which I believe have never been manufactured in any other country—the *rebozo* (a long shawl worn by the women), and the *serape*, which is used all the year round by the men. The *rebozo* is made either of cotton or silk, and sometimes one-half of each. Those made of cotton are most esteemed, and sell for the highest price. They sell for from twenty to fifty and a hundred dollars. If they could be made as other similar fabrics are, by European skill and machinery, they would not cost ten dollars. The *serape* is nothing more than a blanket, the warp of cotton and the filling of wool, with all the fantastical figures woven upon it which characterise the Indian taste for wampum and beads. They sell at from three dollars to three hundred. In summer or winter nearly every Indian you meet has one thrown over his shoulders, and in the rainy season no man rides five miles without one."

foreign commerce. Tobacco and gunpowder were royal manufactures and monopolies; and the former brought to the crown a clear revenue of 4,000,000 of dollars annually. Mexican artizans were said, by Von Humboldt, to be remarkably skilful in works of plate and jewellery; and, like some of the eastern nations, they had a singular turn for imitation; that very good carriages were made at Mexico, though the best coaches came from England. Mr. Thompson denies that they are skilful plate workers.

There were carriage-roads established by Spain from Mexico to most of the principal towns of the kingdom; but the transport of commodities has been chiefly effected, as in Old Spain, on the backs of mules. The new road from Perote to Vera Cruz was compared by Humboldt to the roads of the Simplon and Mont Cenis. It was going since then to ruin; but is in better condition, since the enterprising Americans have established diligences, driven also by Americans, between Vera Cruz and the city of Mexico.

Of the present state of manufactures in Mexico, Mr. Mayer gives the following statement:—

"A favourite mode," he says, "of raising loans in Mexico, for the benefit of government, has been that of granting permits to merchants (chiefly Englishmen) to introduce cotton twist into the republic. This is a prohibited article—prohibited for the purpose of cherishing the manufacturing establishments of the country. That these have progressed to a very considerable extent, and have entirely outstripped the production of the cotton planters of Mexico, will be seen by the annexed table, which I have obtained from the most authentic sources:—

STATISTICS of Mexican Manufactures.

DEPARTMENTS.	Factories.	Spindles Established.	Spindles in Erection.	TOTAL.
	number.	number.	number.	number.
In Mexico.....	12	30,166	...	30,156
" Puebla*.....	21	35,672	12,240	47,912
" Vera Cruz.....	7	17,860	5,200	23,060
" Guadalajara.....	5	11,312	6,890	17,812
" Queretaro.....	2	7,620	...	7,620
" Durango.....	4	3,220	...	3,220
" Guanajuato.....	1	1,200	...	1,200
" Sonora.....	1	1,000	...	1,000
Total.....	53	107,340	23,940	131,280

* Mr. Thompson says.—"Puebla is the Lowell of Mexico. The principal cotton manufactures are located there, and some of them in very successful operation, which can be said of very few others. The English and other foreign merchants had, in 1842, either by the force of argument or some more potential influence, induced the President to consent to the admission, on more favourable terms, of coarse cotton goods; but the united and violent opposition of the manufacturers of Puebla defeated the arrangement. I said that very few of these establishments in Mexico were prosperous, or ever have been, although the price of an article of cotton goods is in Mexico thirty cents a yard, which sells in the United States for six cents. This results from many causes, which appear insuperable. The first of these is the high price of the raw material, which ranges from forty to fifty cents per pound, and in such articles as coarse cottons, the raw material constitutes the chief element of value. The importation of raw cotton is absolutely prohibited, and the tariff policy in Mexico, as in all other countries, rests upon a combination of different interests which are benefited by it; and although neither the manufacturers nor the cotton growers constitute a numerous class in Mexico, yet their combined influence, with the aid of the catch-words 'National independence, home industry,' &c., which have had so much power in a much more enlightened country than Mexico, are all-sufficient to sustain the prohibitory system—by which a Mexican pays for one shirt a sum that would buy him five in any other

" It must be remarked, that there are three manufacturing establishments in the department of Durango, the number of spindles in which, are not included in the preceding table, because the *Junta de Industria* had not received very definite information respecting them. They may, however, be calculated at about 4000, which, added to the 131,280, will give a grand total of 135,000, at least. The number of looms, also, in the republic is not presented, because *data* have been furnished only in relation to those moved by machinery. An immense number of hand-looms are in constant occupation throughout the republic.

COTTON FACTORIES.	Quantity.	Amount.	COTTON FACTORIES.	Quantity.	Amount.
	Ibs.	dollars.		Ibs.	dollars.
I.			IV.		
The cotton factories of the Republic consume, daily, with the 107,340 spindles, in actual operation.....	30,755		The 131,280 spindles, working day and night, will consume.....	24,707,282	
Which produce in spun thread, at the rate of one-third of a lb. for each spindle.....	35,780		Produce in thread.....	22,317,600	
Which, converted into mantas and rebozos, have a value of.....	....	59,358	Produce in manufactured value, as above .....	....	24,849,280
II.			V.		
The same factories, after the 23,940 spindles in erection are in operation, will consume daily.....	48,622		The 131,280 spindles will occupy (working only by day).....	looms.	
Each spindle will produce of thread. Which, converted as aforesaid, will amount in value to.....	43,760		Do. " do. (working day and night)	8,533	
....	....	48,687	Operatives employed by day.....	29,000	
III.			Do. " do. day and night.	17,000	
The consumption of cotton, in the year, of 360 working days, with 131,280 spindles, will be.....	14,586,686		VI.		
The produce in thread.....	13,138,000		It will require for the 131,280 spindles working by day.....	quintales of cotton.	
The produce in manufactured value, as above.....	....	14,440,800	The produce of the country, at the utmost, is not more than.....	143,666	
			Leaving a deficit of.....	50,000	
			*But if the spindles work day and night, they will require.....	95,666	
			Produce of the country, as above.....	quintales.	
			Leaving a deficit of.....	247,972	
				50,000	
				197,972	

* At the town of Lowell, alone, they make nearly 1,250,000 yards of cotton cloth per week, employ about 9000 operatives (6373 females), and use 433,000 lbs. of raw cotton per week. The annual amount of raw cotton used, is 21,568,000 lbs.; enough to load fifty ships, of 350 tons each; and of cotton manufactured, 70,275,916 yards: 100 lbs. of cotton will produce eighty-nine yards of cloth.

" It is true, that many persons have been induced by this condition of the market, and the prohibition of importing the raw material, to commence plantations of cotton; but we doubt whether the habits of the agricultural population will permit their prosperity. They dislike to adventure in new branches of industry. If their ancestors wrought on cotton plantations, they are content to continue in the same employment; but it will be difficult to train the new labourer to the newer cultivation. They adhere too closely to traditional occupations, and I have heard of some most signal failures, which have forced persons to abandon their establishments, after a considerable outlay of money in land and implements:

" The cotton crop of Mexico has been very variable in value. At Tepic, on the west coast, it has been as low as fifteen dollars the quintal; at Vera Cruz, on the east coast, twenty-two dollars and thirty-four dollars; while at Puebla, and in the capital, it has risen to forty dollars, and even forty-eight dollars.

" In spite of all the efforts of English capitalists and diplomacy, the government has steadily persevered in fostering the manufactures of the republic, except by the occasional allowances of the importation of *twist*. The administration of Santa Anna, however, has been energetic, I am informed, both in its opposition to the introduction of this article,

country. Another immense disadvantage of the Mexican manufacturer is, that all his machinery is transported by land at enormous cost—and when any portion of it gets out of order, the difficulty and delay of repairing it, and the consequent loss are incalculable. However tempting to such an investment may be the high prices of the manufactured articles, those high prices are equally tempting to smuggling in a country with 10,000 miles of frontier and sea-board. There is, perhaps, no other country where the receipts of the custom-house are so little to be relied on as to the amount of importations, and where smuggling is carried to so great an extent; even where goods are regularly imported, innumerable frauds are practised both by and upon the custom-house officers."

and in its effects to suppress the smuggling of English and American fabrics. The manufacturers, therefore, regard their establishments as perfectly safe, and their future success as certain."

The average price of *mantas* (cotton cloth), of one *vara* width, in 1842, was about twenty-five cents the *vara*: and of *twist*, No. 12 to 22, about seventy-five cents the pound. It was estimated, that if cotton fell in consequence of importations being allowed, or a large crop, to twenty-five dollars the quintal, these articles would be reduced to eighteen and three-quarters cents the *vara* for the first, and to fifty cents the pound for the second. This condition of the market would prevent all importations from abroad, even aided by smuggling.*

"An intelligent merchant of the city of Mexico, who has resided long in the country, and has an extensive acquaintance in the republic, informs me that there are about 5000 hand-looms throughout the departments, which will work up all the spun yarn into *mantas* and *rebosos* as fast as it can be made. Many of these looms are entirely employed in the manufacture of the common *rebosos* the consumption of which is so great among the poorer classes. The value of these looms is estimated at between 6,000,000 dollars and 7,000,000 dollars. The number of persons employed, in every way in manufactures, cannot be much short of 30,000.

"The power made use of for the movement of the factories is water; which is abundant for that purpose, all over the country, proceeding from small streams falling from the mountains into the neighbouring plains or barrancas. Owing to the scarcity of wood, and the costliness of its transportation, steam cannot be advantageously applied.

"There are several manufactories of cotton balls, or thread, in Mexico, but they are not of very great importance.

"Paper factories are working with considerable success. There are two near the capital, one at Puebla, and one in Guadalaxara. Their productions are very good, but by no means adequate to the consumption of the country. The quantity of this article used for *cigarritos*, or paper cigars, is inconceivable. The best coarse wrapping or envelope paper, I have ever seen, is made in Mexico from the leaves of the *Agave Americana*, the plant which yields "pulque." It has almost the toughness and tenacity of iron.

"Both at Puebla and Mexico there are several glass factories, making large quantities of the material for windows and common tumblers. Their produce is, nevertheless, insufficient for the wants of the country.

* "I have before remarked that enough cotton is not raised to supply the very limited demand of the Mexican manufacturers. The most of this is produced in the districts which lie upon the Pacific Ocean, but the climate of nearly all Mexico is suited to the growth of cotton. I can see no reason why it is not produced in much larger quantities, bearing, as it does, so enormous a price, except the characteristic indolence of the people. I have no data from which to form even a conjecture of the number of yards of coarse cottons which are annually manufactured in Mexico. It's estimated that 8,000,000 of dollars are invested in these manufactories. From that fact those skilled in such matters may be able to form some estimate of the quantity manufactured. It would be well, however, in making such an estimate to consider that the same machinery could be put up in this country at one-third of what it has cost in Mexico, and that an establishment in which the managers and operatives were Americans would probably make at least five yards for one. With the exception of a few of the manufactories in Puebla the business of manufacturing cotton has not been profitable in Mexico. One or two Americans have gone there and attempted it, but their experiments have ended in bankruptcy. A more striking proof of the unconquerable repugnance of the Mexican to labour cannot be given than the fact that short staple cotton sells there at from forty to forty-five cents per pound, while they have lands and climate as well adapted to its culture as ours, and these lands dirt cheap; yet they never make enough for their own small consumption. The importation of cotton is positively forbidden by law; but this law is often relaxed, by selling the privilege to mercantile companies to import a certain number of bales. If such prices could be obtained at home, our northern people would discover some plan of raising it profitably in hot-houses. Although the whole road from the city of Vera Cruz to the city of Mexico passes through a country inexpressibly picturesque and beautiful, yet the ignorant, idle, and degraded population, the total absence of cultivation and improvement, and a general appearance of wildness and desolation, produced in me feelings partaking of gloom and melancholy. Neither in going nor returning did I see one human being, man, woman, or child, engaged at work of any sort. The great mass of the population doze out their lives with no higher thoughts or purposes than the beasts which perish around them."

"Woollen blankets, and some very coarse woollen cloths or *baizes*, are also manufactured in the republic. The blankets are often of beautiful texture, and woven, with the gayest colours and patterns, into a garment that frequently costs a fashionable cavalier from two to five hundred dollars. As this is as indispensable an article for the comfort of a lépero as of a gentleman, and as necessary for a man as a reboso is for a woman, you may readily imagine how great is the consumption.

"Such is a sketch of this branch of industry, to which the government and people seem to have devoted themselves with a hearty will. We have dwelt at considerable length upon it, as evincing an energy and temper not usually attributed to Mexicans, and for the purpose of exhibiting a phase of character at once creditable to their resolution and manifesting a degree of independence and thriftiness worthy of imitation."

Several failures have occurred in the cotton factories of Mexico. The prohibitory system is persevered in; and the prices of cotton cloths, especially, are enormously high. Mr. Thompson has a far less favourable opinion than Mr. Mayer of the manufactures of this republic.

COMMERCE OF MEXICO UNDER THE SPANISH GOVERNMENT.

THE commerce of New Spain with the mother country was carried on almost entirely through Vera Cruz. In time of peace, Mr. Humboldt estimated the annual value of the exports, in that commerce, at 22,000,000 of dollars, and the annual value of the imports at 15,000,000 dollars. His statement of the articles are as follows:—

EXPORTS.	Dollars.	IMPORTS.	Dollars.
Gold and silver, in coin, bullion, and plate ..	17,000,000	Bale goods, including woollens, cottons, linens, and silks ..	9,200,000
Cochineal.....	2,400,000	Paper	1,000,000
Sugar.....	1,300,000	Brandy.....	1,000,000
Flour.....	300,000	Cacao.....	1,000,000
Indigo, being the produce of Nuevo Espana.....	280,000	Quicksilver.....	650,000
Salt meat and other provisions	100,000	Iron, manufactured and unmanufactured.....	600,000
Tanned hides.....	80,000	Steel.....	200,000
Sarsaparilla	90,000	Wine.....	700,000
Vanilla.....	60,000	Bees'-wax	300,000
Jalap.....	60,000		
Soap	50,000		
Logwood.....	40,000		
Pimento	30,000		
	21,790,000		14,600,000

This statement, however, must be considered as a mere approximation, which Humboldt, founded on the average of several years of peace, and therefore more applicable to the period antecedent to 1796, when the war with England broke out. Humboldt does not include, in this estimate, the contraband trade on the sea coast, and he has also omitted the indigo imported from Guatemala, and the cacao of Guayaquil, though exported from Vera Cruz, because these articles were not the produce of that kingdom.

The difficulty of intercourse at times was so great, that from Acapulco to Lima the passage was sometimes longer than from Lima to Cadiz. Mexico and Peru, though at no great distance, were therefore incapable of maintaining any considerable commerce with each other. The old Acapulco Manilla ship arrived once a year at Acapulco with a cargo of Indian goods, valued at 1,200,000 or

1,300,000 dollars, and carried back silver in exchange, with a very small quantity of American produce, and some European goods.

The last *flota*, under the old system, sailed from Vera Cruz in 1778, and exported the produce of the four preceding years, which amounted in value to

	Dollars.
The exports of produce in 1787—90, the four first years after the new system was completely established, were valued at.....	2,470,023
..... 11,894,694	<hr/>
Difference of the four years.....	8,924,642
..... 9,188,212	<hr/>
Export of produce in { 1802.....	5,128,283
1803.....	

The export of 1802 was not, probably, a fair comparison, as *that* was the first year of peace after the termination of a long war, in which the direct commerce with Spain had been in a great measure suspended. In 1803, the value of exports was more than double that of four years under the old system, and nearly equal to the exports of two years immediately after the introduction of a more open trade. This open trade must not be considered either a free trade, or a trade with a foreign country. It meant, in fact, an open trade with Spain. The trade with foreign countries was really *open* only after 1808, and it is now nearly closed by a prohibitory tariff.

Humboldt gives the following estimate of the total amount, including the contraband:

	Dollars.
Annual value of importation of goods.....	20,000,000
— exportation of produce	6,000,000
Balance to be discharged in money.....	<hr/> 14,000,000
Annual produce of the mines.....	23,000,000
Export of money on account of the crown, and of private individuals residing in Spain.....	8,000,000
Export to discharge the balance of trade.....	14,000,000
Money added to the circulation of the colony.....	1,000,000
	<hr/> 22,000,000

According to Humboldt, the dollars imported into Nueva Espana and Guatemala, in 1803, amounted to 22,000,000; and the exports consisted of produce to the value of 9,000,000 dollars, besides 22,500,000 dollars in specie.

The commerce of Mexico has been diminishing for the last eighteen years. This is attributable to the continual revolutionary disturbances of the country, the decrease of the wealth of the people, and the pecuniary embarrassments to which most of the inhabitants have been subjected, by the non-payment of government loans, and of unfortunate investments.

In 1832 and 1833, the revenue of the custom house amounted to about 12,000,000 per annum. In 1839, on account of the French blockade, it fell to nearly 3,000,000; in 1840, it rose again to 7,000,000; and, in the following year, fell to little more than 5,000,000 which sum may be divided among the different ports as follows, to wit:

	Dollars.
Vera Cruz.....	3,329,802
Tampico.....	683,090
Matamoras.....	312,403
Marattan.....	843,159
Guyanas.....	55,914
Monterrey.....	96,858
Acapulco.....	17,182
San Blas	298,945
	<hr/> 5,387,097

This corresponds to about 12,300,000 dollars' value of importation annually divided (according to an estimate), in the following manner:—

	Dollars.
From England	4,500,000
France	3,000,000
" Hamburg	1,500,000
" China	1,000,000
" United States	800,000
" Spain	500,000
" Genoa and other ports	1,000,000
	<hr/> 12,300,000

The expense to the government, for the collection of this revenue, was 348,290 dollars. These statements are exclusive of the contraband-trade from the United States by Santa Fé, and by the English and Americans by the sea-coasts.

The exports from the whole republic (chiefly its own productions), may be rated as follows, viz.:—

E X P O R T S .	Amount.
Precious metals..	dollars.
Specie, through Vera Cruz.....	4,000,000
" Mazatlan and San Blas.....	2,500,000
Silver and gold, through other ports.....	5,000,000
Silver, through Tampico.....	7,000,000
Cochineal, jalap, vanilla, sarsaparilla, and hides.....	1,000,000
Sundries.....	500,000
Total.....	20,000,000

From this estimate, about 18,500,000 dollars in the precious metals, are exported annually from Mexico. The mines produce near 22,000,000 of silver, of which, it is calculated, that 12,000,000 are coined in the seven mints of the republic per annum. There is a difference of about 8,000,000 dollars between the imports and exports, a large portion: all which is estimated to be covered by smuggling.

The following comparative estimate of the exports and imports of the United States and of Mexico, for the years 1841 and 1842, cannot fail to be interesting in this connexion, especially when the comparative extent of territory and population is taken into consideration:

E X P O R T S .	Amount.	Amount.
Exports from Mexico in 1842	dollars.	dollars.
Of which, in gold and silver .....	....	20,000,000
Balance in other products of industry .....	....	18,500,000
Excess of imports over the industrial exports, exclusive of the precious metals.....	....	1,500,000
Imports of the United States in 1841-2 .....	....	10,500,000
Exports from " " " .....	....	99,857,339
Difference....	....	104,117,969
Exports of gold and silver .....	....	4,760,640
Of which was the produce of U. S. Mines	2,746,486	9,805,235
" foreign gold.....	677,997	
" foreign silver.....	6,331,452	
Total....	9,805,235	
Total exports from the United States .....	....	104,117,969
Deduct exports of the precious metals.....	....	9,805,235
		<hr/> 94,312,734

The United States exported 94,312,734 dollars' value, representing her industry (exclusive of gold and silver), while Mexico, with a territory nearly as large, exported but 1,500,000 dollars. In addition to this, it must be recollect, that but 2,746,846 dollars of the precious metals were the product of the United States, while at least 15,000,000 dollars were the product of the Mexican mines; leaving an excess of nearly 3,000,000 above the total annual coinage of the nation.

	dollars.
Whole value of exports, say for 8,000,000 inhabitants	20,000,000
" " 17,000,000 "	104,117,969

This will give the ratio of about 6 dollars 12½ cents for each person in the United States, and 2 dollars 50 cents for each person in Mexico.

The contraband trade of Mexico has been carried on there with the utmost audacity; statistical returns must therefore be imperfect.

TRADE OF THE SEA PORTS.

We have observed that there are no great navigable rivers, and few good harbours. Not a mile of any Mexican river is navigated by steamboats. Probably not 600 miles of all the rivers in the empire could be navigated by the smallest steam vessels —nor is there a railroad in Mexico. It is asserted that there is not one in any country in which the Spanish language was spoken. We believe not one in 1846. Nearly all European trade passes through Vera Cruz and Tampico. The backs of mules are the means of transport.

PORT OF VERA CRUZ.—This port is far from being a good harbour. It is rather a roadstead. The little island of St. Juan de Ulloa, which is entirely covered with the immense fortress, is 500 or 600 yards from the mole of Vera Cruz, between which points all the commercial shipping anchors. It frequently occurs that violent north winds (called “los nortes,” or northerns) drive the vessels on shore, and even seriously damage the mole. The anchorage is bad. There is a brilliant revolving light, eighty feet above the level of the sea, on the north-west point of the island. Foreign ships of war anchor about three miles below, near the island of Sacrificios. A very narrow channel affords the only passage for ships of war, which must consequently pass immediately under the guns of the fort. The fortress of St. Juan de Ulloa has always been considered as one of the strongest in the world. When it was blown up in 1839, by the French, its garrison was wretched. Even then it would not have been so readily taken had it not been for the accidental explosion of the powder magazine. It is at present, August, 1846, blockaded by the United States. Mr. Thompson says,

“Vera Cruz is much more effectually protected than by all her fortifications, by the northerns and vomito (the yellow fever). The former have been the terror of all seamen since the discovery of the country. The latter prevails on all the Atlantic coast of Mexico during the whole year, and with the greatest malignancy, for two-thirds of the year; and it so happens, that the few months of comparative exemption from the ravages of the yellow fever are precisely those when the *northers prevail* with the most destructive violence.

“I can see no advantage which could be gained by getting possession of Vera Cruz

which would be at all commensurate with the loss of life, from disease alone, in retaining it. It is not the only port which Mexico possesses; and if it were, there is no country in the world which would be so little injured by cutting off all its foreign commerce, for there is no single want of civilised man which Mexico is not capable of furnishing. The town, it is true, might be destroyed, and heavy losses and much individual suffering be caused, but these are amongst the painful and deplorable consequences, not the legitimate objects of honourable war."

The present city of Vera Cruz is not the same which was built by Cortez in 1519, and which was the first European settlement in America. The *Villa Rica de la Vera Cruz*, the rich town of the true cross, is distant about six miles from the present city. Vera Cruz is described as rather a neatly built town, with broad and tolerably clean streets.

Mr. Thompson, who gives the last account of it, says,

"It would no doubt be as healthy as any other place in the same latitude and climate, if it were not for some large swamps in the rear of the city. The vomito is by no means the only, nor do I think it the most fatal of the diseases which prevail there. The bills of mortality in some years exhibit a great number of deaths from some other diseases, whilst in other years much the greatest number die of vomito."

COMMERCE of the Port of Vera Cruz.

N A T I O N S .	O N E Y E A R ,		S I X M O N T H S .	
	From the 1st of January to the 31st of December, 1841.		From the 1st of January, 1842 to the 1st of July.	
	Entries.	Departures.	Entries.	Departures.
American.....	39	37	19	19
English.....	45	42	26	21
French.....	31	33	13	17
Spanish.....	36	35	12	15
Hamburg.....	5	5	3	4
Danish.....	5	4	1	1
Belgian.....	3	3	1	0
Bremen.....	4	4	1	1
Prussian.....	2	2	2	0
Sardinian.....	4	5	2	2
Colombian.....	5	5	2	3
Mexican.....	37	43	20	26
Total.....	216	218	102	109
Passengers in 1841.....			1109	
Immigrants.....			459	
Increase of population			614	

GROSS Return of British and Foreign Trade at the Port of Vera Cruz, during the Year 1845.

N A T I O N S .	A R R I V E D .				D E P A R T E D .			
	Vessels.	Tons.	Crews.	Invoice Value of Cargoes in Pounds Ster- ling.	Vessels.	Tons.	Crews.	Invoice Value of Cargoes in Pounds Ster- ling.
English.....	17	2,438	124	468,200	18	2,676	138	
Mexican.....	164	11,480	984		163	11,573	976	
American.....	35	7,315	235		34	7,104	226	
French.....	17	3,764	204		20	4,493	241	
Spanish.....	16	2,216	128		15	2,107	121	
Hanseatic.....	6	1,015	62		6	1,016	62	
Danish.....	5	793	47		4	612	37	
Belgians.....	3	542	27		3	542	27	
Prussians.....	2	376	23		2	376	23	
Sardinians.....	2	366	24		5	631	53	
Venezuelans.....	1	110	7		1	110	7	
Total.....	268	30,416	1865	£	271	31,229	1911	

REMARKS.—The value of foreign importations cannot be obtained at the custom-house, where no account of them is kept: nor are foreign merchants at all disposed to give any such information.

The PORT OF TAMPICO has a bar at both the entrance of Boca del Rio and Brazo de Santiago, and they only admit small brigs and lesser vessels; but the rivers which flow into the lagoon are to some extent navigable. It is quite or nearly as unhealthy as Vera Cruz.

FOREIGN Trade of Tampico, from the 1st of January to the 31st of December, 1841.

NATIONS.	ARRIVED.				DEPARTED.			
	Vessels.	Tons.	Crews.	Value of Invoice in Pounds Ster- ling.	Vessels.	Tons.	Crews.	Value of Invoice in Pounds Ster- ling.
United States.....	number. 24	number. 2372	number. 168	£ 49,025 8-2	number. 24	number. 2437	number. 155	£ 119,840 5-2
British men-of-war and packets.....	19	....	....	66,735	19	....	....	1,120,397
British merchantmen.....	9	1041	70	215,900	6	696	62	4,800
Mexican.....	18	864	120	14,800	18	885	123	3,900
Hanseatic.....	4	592	42	83,000	3	462	32	35,000
French.....	6	620	65	64,300	10	1290	110	40,000
Spanish.....	9	1004	89	26,000	7	786	76	2,000
Sardinian.....	1	110	9	6,000	1	110	9	600
Danish.....	1	62	5	1,200	1	62	5	—
Total.....	91	6935	568	526,960 8-2	91	6983	566	1,326,597 5-2

N.B.—The pound sterling is valued at five dollars.

FOREIGN Trade with Tampico, from the 1st of January to the 31st of June, 1842.

NATIONS.	ARRIVED.				DEPARTED.			
	Vessels.	Tons.	Crews.	Invoice Value of Cargoes.	Vessels.	Tons.	Crews.	Invoice Value of Cargoes.
American.....	number. 15	number. 1277	number. 91	dollars. 43,320	number. 13	number. 1092	number. 83	dollars. 171,960
British men-of-war and packets	14	....	....	269,953	14	....	....	2,845,940
British merchantmen.....	8	1270	62	310,000	5	687	39	7,125
Mexican.....	20	976	142	58,000	17	983	119	6,250
Hanseatic.....	2	260	19	103,000	2	260	19	5,000
French.....	4	497	35	200,000	5	541	44	175,000
Spanish.....	2	194	22	45,000	4	402	37	4,000
Sardinian.....	1	136	7	23,000	1	136	7	3,000
Columbian.....	1	57	10	6,000	1	57	10	4,000
Total.....	67	4667	338	1,062,245	62	4158	336	3,223,565

N.B.—The importation in British vessels and royal mail-steams, is entirely quicksilver.

GROSS Return of British and Foreign Trade at the Port of Tampico, during the Year ending the 31st of December, 1844.

NATIONS.	ARRIVED.				DEPARTED.				
	Vessels.	Tons.	Crews.	Invoice Value of Cargoes.	Vessels.	Tons.	Crews.	Invoice Value of Cargoes.	
British..... (Of the country in which the consul resides.)	number. 9	number. 923	number. 70	dollars. 198,000	number. 8	number. 629	number. 70	dollars. 2,910	
French.....	14	1582	135	84,000	14	1582	135	25,000*	
Spanish.....	15	1626	104	21,000	15	1563	99	24,000†	
American.....	1	160	10	5,000	1	100	10	500	
Bremen.....	Total.....	39	4291	319	208,000	38	3933	314	53,410

* Chiefly specie.

+ Including specie.

The PORT OF MATAMOROS is formed by the Rio Bravo del Norte, and is forty miles distant from the town, where the custom-house is. There are two harbours, viz., the

Brazo de Santiago, and the Boca del Rio; which latter is about nine miles to the southward of the former. Both are obstructed by a bar; that of the Brazo having usually from eight to ten feet water over it; and that of the Boca del Rio, from four to six feet. These bars are impassable during any strong wind. The anchorage in both harbours is fair, in three to five fathoms; but there is no perfect security for vessels during the gales so frequent in August and September. Vessels cannot come up the river to the town. In the Brazo, they unload by means of lighters; and in the Boca del Rio, they discharge on the banks of the river. The tide rises and falls but a few inches.

There is no lighthouse, and the coast is very flat. The best indication to an arriving vessel of her proximity to the port, is the discolouration of the water caused by the river, and which extends to some distance at sea.

On the arrival of a vessel off either harbour, the pilot goes out to her, if the bar be not too rough. A custom-house officer receives all the papers, giving to the captain a receipt for the same.

The whole trade of Matamoras in 1841, was carried on in vessels from the United States—Vessels, 32; tonnage, 2345.

EXPORTS to the United States.

ARTICLES.		Value.
Specie.....		dars. cts.
		252,766 87
Hides.....		117,334 00
Wool.....		16,943 00
Horses and mules.....		500 00
Total.....		486,084 87

IMPORTS from the United States.

COUNTRIES.	Silks.	Woollens.	Cottons.	Linens.	Ironware and ma- chinery.	Paper.	Jewelry.	Sundries.	TOTAL.
Germany.....									
England.....	1040	25,046	2,081	46,947	..	..	..	246	43,244
Spain.....	..	..	146,280	23,768	3,921	..	..	3,140	308,195
United States.....	..	..	25,640	..	..	..	..	8,060	8,060
France.....	2240	4,148	31,480	..	15,120	..	..	6,6140	100,900
Havana.....	..	..	..	6,897	270	1690	453	6,234	52,201
Total value....	3240	29,194	205,451	71,812	19,811	1690	453	96,165	426,945

GROSS RETURN of the Trade of the Port of Matamoros during the Year ending the 31st of December, 1844.

NATION.	ARRIVED.				DEPARTED.			
	Vessels.	Tonnage.	Crews.	Invoice Value of Cargoes in Pounds Ster- ling.	Vessels.	Tonnage.	Crews.	Invoice Value of Cargoes in Pounds Ster- ling.
Mexican	18	923	104	12,264	17	835	95	10,915
French.....	1	110	6	5,480	1	110	6	2,380
Hanseatic	1	83	7	6,000	1	83	7	..
United States.....	18	928	84	49,080	11	893	77	49,080
Total.....	33	2654	263	68,814	30	1677	167	62,979

Imports.—Fleur, spirits, groceries, and dry goods, from New Orleans and England.

EXPORTS.

Specie.....	£	37,162
49,841 Hides, value	£	15,000
277,150 lbs. wool	£	8,725

2 x 2

RETURN of the Royal Mail Company's Ships which arrived and departed from Tampico during the Year ending the 31st of December, 1844.

NAME.	ARRIVED.			DEPARTED.		
	Date.	Where from.	Cargoes.	Date.	Where to.	Specie shipped.
Forth.....	January 20.	Southampton.	\$	January 30.	Southampton.	260,000
Dee.....	February 18.	do.		February 24.	do.	21,000
Tweed.....	March 19.	do.	Quicksilver,	March 22.	do.	15,600
Teviot.....	April 16.	do.	the total value of which	April 24.	do.	9,000
Thames.....	May 15.	do.	taken from the Consignees	May 24.	do.	232,000
Medway.....	June 15.	do.		June 21.	do.	11,500
Severn.....	August 14.	do.	was	August 26.	do.	7,600
Trent.....	September 18.	do.	154,000	September 26.	do.	360,000
Avon.....	October 22.	do.		October 26.	do.	8,000
Forth.....	November 17.	do.		November 22.	do.	6,000
Dee.....	December 18.	do.		December 23.	do.	
Total value..	....	....	154,000	....	....	930,700

"Exchange of Money, Weights, and Measures.—1 dollar = 8 rials, 1 rial = 2 medios.

"The currency of the place, "dinerio provisional," although it consists precisely of the same denominations, is worth $2\frac{1}{2}$ per cent less than the new Mexican dollar, which is the only coin exported or received at the Custom-house. That is to say, $2\frac{1}{2}$ per cent is the premium paid on the spot, in exchanging one for the other. But the difference between the intrinsic value of the two coins is, I understand, much greater.

1 quintal = 4 arrobas = 100 lbs. Spanish; 100 Spanish lbs. = 101.75 lbs. English.

1 vara = 36 inches, 108 varas = 100 English yards.

Pilotage.—At the Boca del Rio, five dollars per foot draught of water. At the Brazo de Santiago, three dollars per foot draught of water.

A bill of health is always required.

Charges and Dues for Lights, Buoys, Quays, Wharfs, &c.—None.

PORTS OF THE PACIFIC.

ACAPULCO, or LOS REYES, is situated on the coast of the South Sea. Its inhabitants formerly consisted of nearly 400 families of Chinese, mulattoes, and negroes. The greater part of the town is on the sea-shore. The air is extremely hot and moist, independent of its being in the torrid zone, it is entirely shut out from the north winds, being surrounded by lofty *serrania*. These circumstances render it very unhealthy, especially in the wet season, on account of the damps and sea-winds blowing from the south-east to the great detriment of the inhabitants and merchants who come to trade here; this being the principal cause why scarcely any Spanish families ever resided here. Owing to the barren state of the land it is forced to seek its necessary supplies from the Indian settlements. The only commerce which it can be said to have ever had was a fair, held on the arrival of the galleons formerly from China; and when those departed there were no other means for the people of maintaining a trade. At the distance of a musket-shot, and on a promontory running far into the sea, is situate the castle and royal fort of San Diego, mounted with artillery. The port is safe, and so spacious that 500 ships can lay at anchor in it with ease. It is surrounded by lofty rising grounds. Its principal mouth is on the south side, formed by an

island of an oblong figure, and somewhat inclining to the south-west. The same island forms also another mouth, which they call *chica*, or little. The canals on either side of the island are twenty-five fathoms deep. The chief trade of Acapulco was its commerce with Manilla. Lat., according to Humboldt, 16 deg. 50 min. 29 sec.; long. by ditto, 99 deg. 46 min. Lat., according to the Spaniards, 16 deg. 50 min. 30 sec.; long. by ditto, 100 deg. Both longitudes being measured from the meridian of Greenwich.

The Ports of SAN BLAS and MAZATLAN are the other principal ports; as harbours, neither are good. We have already given all the information we could obtain relative to the ports and trade of San Francisco and California.

GROSS RETURN of British and Foreign Trade at the principal Ports within the Consulate of San Blas during the Year ending the 31st of December, 1845.

PORT of San Blas.

NATION.	ARRIVED.				DEPARTED.			
	Vessels.	Tonnage.	Crews.	Invoice Value of Cargoes.	Vessels.	Tonnage.	Crews.	Invoice Value of Cargoes.
British.....	4	1125	59	...	4	1125	59	44,000
Danish.....	1	101	8	135,000	1	101	8	8,000
Peruvian.....	1	61	8	...	1	61	8	...
American.....	1	382	8	110,000	1	382	8	7,000
PORT OF MAZATLAN.								
British.....	4	1115	59	274,000	4	1165	68	381,500
Hamburg.....	4	940	51	118,000	5	1210	69	160,600
American.....	1	175	11	...	2	431	23	250,000
Chilian.....	4	560	27	74,500	1	128	9	5,000
Bremen.....	2	390	24	123,000	2	390	24	84,000
Danish.....	1	220	12	60,000	1	230	12	34,500
Ecuador.....	1	206	14	24,000	1	206	14	300,000
Spanish.....	1	225	14	30,000	1	225	14	...
Peruvian.....	1	210	16	...	1	210	16	...
Swedish.....	2	700	32	202,000	2	700	32	50,000
French.....	1	210	14	40,000	..	..	..	..
Total.....	29	6360	367	1,188,500	27	6644	363	1,322,100
Or at the exchange of 48d. per dollar.....	..	..	..	£237,700	..	..	..	£364,630

STATEMENT of all Port Dues and other Charges on Foreign Shipping at the principal Ports of the Mexican Republic.

PORTS.	Tonnage Duty.	Water Dues.	Pilotage.	Ballast Charge.	Bill of Health.	Fee to Captain of the Port.	Stamps.
Vera Cruz.....	dollars. 1½	dollars. one-eighth per ton.	dollars. 38½ each ship.	dollars. 55 per barge load of 25 tons.	dollars.	dollars. 10	dollars. 8½
Tampico	1½	2 per 9 feet measure- ment.	1 per ton.	....	10	10	...
Matamoras	1½	....	gratification to pilot 16½	....	....	6	8
San Blas..... Mazatlan..... Guyanas.....}	1½	....	....	....	....	16, and for shifting their ship each time, 4	...

REMARKS.—Whether a ship takes a pilot or not, the pilotage money is exacted on foreign shipping. The charge for ballast is exorbitant, and presses severely on owners of foreign vessels. The supply for ballast is a monopoly in the hands of barge proprietors. No foreign ship is allowed to convey its own ballast from the beach, which is all sand, and superabundant. Could the Mexican government be prevailed on to permit

each ship to ballast with its own boats, it would have the effect of reducing the price of ballast, and would prove a great relief to British ship owners. Vouchers are not given in all cases. Vouchers are here given only on water dues, pilotage, and bill of health; the exceptions being on tonnage duty, fees to captain of the port, and stamps. There are no lights on the coast in this vicinity. Any assistance afforded to vessels in distress is an enormous and extra charge, at the will or caprice of the solitary pilot establishment at the bar, which is not under the control of the government. Vouchers are given by the custom-house on payment of the tonnage duty, and for the captain of the port for fees levied by him.

The dues here specified are exacted on all foreign vessels whatever, and under every circumstance, whether loaded or in ballast, when calling for orders or for supplies. Every vessel letting go her anchor in the harbours or roadstead, even if there is no cargo on board, is subject to these dues; and if loaded the cargo must all be discharged, whether destined for that port, or any other place whatever. There are no light-houses, buoys, or moorings, nor any establishment of pilots on the west coast of Mexico; nor are any services rendered or advantages existing which would warrant the exorbitant tonnage dues and charges exacted.

No advantages are enjoyed by foreign vessels from which British vessels are excluded. Mexican vessels employed in the coasting trade are exempted from all the charges specified in this statement. No foreign vessels are permitted to carry on the coasting trade.

BRITISH CONSULATE, *Mexico, 30th of May, 1845.*

No country imposes such enormous charges on shipping as Mexico. For instance:

CHARGES ON BRITISH SHIPPING BY THE AUTHORITIES OF TAMPICO. Example:—Brig Tomlinson, 125 Tons Register.

	dollars. cents.	s.	£ s. d.
PILOTAGE.			
125 tons at	1 dir.	125 0	at 4 25 0 0
Drafts, nine feet, at.....	3 dir.	18 0	, 4 8 12 0
To the pilot	6 50	" 4	1 6 0
Voucher given.....	149 50	, 4	29 18 0
TONNAGE DUTY.			
125 tons, Mexican measurement, no voucher given, at.....	1½ dir.	202 50	, 4 40 10 0
		852 0	, 4 70 8 0
BILL OF HEALTH.			
Report in the bill		10 0	, 4 2 0 0
Captain of the port fees, no voucher.		10 0	, 4 2 0 0
Stamps	6 50	, 4	1 14 0
	280 50	, 4	76 2 0

Tampico, the 28th of November, 1844.

JAMES WILLIAM GLASS, (*Consul*).

TREATIES OF AMITY, COMMERCE, AND NAVIGATION, BETWEEN THE GOVERNMENT OF THE UNITED STATES AND THE GOVERNMENTS OF THE SPANISH AMERICAN REPUBLICS.

Treaty with the United States of Mexico.

ARTICLE I.—There shall be perpetual amity between the dominions and subjects of his Majesty, the King of the United Kingdom of Great Britain and Ireland, and the United States of Mexico, and their citizens.

ARTICLE II.—There shall be, between all the territories of his Britannic Majesty in Europe and the territories of Mexico, a reciprocal freedom of commerce. The inhabitants of the two countries respectively, shall have liberty freely and securely to come, with their ships and cargoes to all places, ports, and rivers in the territories aforesaid, saving only such particular ports to which other foreigners shall not be permitted to come, to enter into the same, and to remain and reside in any part of the said territories respectively; also to hire and occupy houses and warehouses for the purposes of their commerce; and, generally, the merchants and traders of each nation, respectively, shall enjoy the most complete protection and security for their commerce.

In like manner, the respective ships of war, and post-office packets of the two countries, shall have liberty freely and securely to come to all harbours, rivers, and places, saving only such particular ports (if any) to which other foreign ships of war and packets shall not be permitted to come, to enter into the same, to anchor, and to remain there and refit; subject always to the laws and statutes of the two countries, respectively.

By the right of entering the places, ports, and rivers mentioned in this article, the privilege of carrying on the coasting trade is not understood, in which national vessels only are permitted to engage.

ARTICLE III.—His Majesty the King of the United Kingdom of Great Britain and Ireland, engages further, that the inhabitants of Mexico shall have the like liberty of commerce and navigation stipulated for in the preceding article, in all his dominions situated out of Europe, to the full extent in which the same is permitted at present, or shall be permitted hereafter, to any other nation.

ARTICLE IV.—No higher or other duties shall be imposed on the importation into the dominions of his Britannic Majesty, of any article of the growth, produce, or manufacture of Mexico, and no other or higher duties shall be imposed on the importation into the territories of Mexico, of any articles of the growth, produce, or manufacture of his Britannic Majesty's dominions, than are or shall be payable on the like articles, being the growth, produce, or manufacture of any foreign country; nor shall any other or higher duties or charges be imposed in the territories or dominions of either of the contracting parties, on the exportation of any articles to the territories of the other, than such as are or may be payable on the exportation of the like articles to any other foreign country; nor shall any prohibition be imposed upon the exportation of any articles the growth, produce, or manufacture of his Britannic Majesty's dominions, or of the said territories of Mexico, to or from the said dominions of his Britannic Majesty, or to or from the said territories of Mexico, which shall not equally extend to all other nations.

ARTICLE V.—No higher or other duties or charges on account of tonnage, light or harbour dues, pilotage, salvage in case of damage or shipwreck, or any other local charges, shall be imposed, in any of the ports of Mexico, on British vessels, than those payable, in the same ports, by Mexican vessels; nor, in the ports of his Britannic Majesty's territories, on Mexican vessels, than shall be payable, in the same ports, on British vessels.

ARTICLE VI.—The same duties shall be paid on the importation into the territories of Mexico, of any article the growth, produce, or manufacture of his Britannic Majesty's dominions, whether such importation shall be in Mexican or in British vessels; and the same duties shall be paid on the importation into the dominions of his Britannic Majesty, of any article the growth, produce, or manufacture of Mexico, whether such importation shall be in British or in Mexican vessels. The same duties shall be paid, and the same bounties and drawbacks allowed, on the exportation to Mexico of any articles of the growth, produce, or manufacture of his Britannic Majesty's dominions, whether such exportation shall be in Mexican or in British vessels; and the same duties shall be paid, and the same bounties and drawbacks allowed, on the exportation of any articles the growth, produce, or manufacture of Mexico, to his Britannic Majesty's dominions, whether such exportation shall be in British or in Mexican vessels.

ARTICLE VII.—In order to avoid any misunderstanding with respect to the regulations which may respectively constitute a British or Mexican vessel, it is hereby agreed that all vessels built in the dominions of his Britannic Majesty, or vessels which shall have been captured from an enemy by his Britannic Majesty's ships of war, or by subjects of his said Majesty, furnished with letters of mark by the Lords Commissioners of the Admiralty, and regularly condemned in one of his said

Majesty's prize courts as a lawful prize, or which shall have been condemned in any competent court for the breach of the laws made for the prevention of the slave-trade, and owned, navigated, and registered according to the laws of Great Britain, shall be considered as British vessels : and that all vessels built in the territories of Mexico, or captured from the enemy by the ships of Mexico, and condemned under similar circumstances, and which shall be owned by any citizen or citizens thereof, and whereof the master and three-fourths of the mariners are citizens of Mexico, excepting where the laws provide for any extreme cases, shall be considered as Mexican vessels.

And it is further agreed, that every vessel, qualified to trade as above described, under the provisions of this treaty, shall be furnished with a register, passport, or sea-letter, under the signature of the proper person authorised to grant the same, according to the laws of the respective countries (the form of which shall be communicated), certifying the name, occupation, and residence of the owner or owners, in the dominions of his Britannic Majesty, or in the territories of Mexico, as the case may be ; and that he, or they, is, or are, the sole owner or owners, in the proportion to be specified ; together with the name, burden, and description of the vessel, as to build and measurement, and the several particulars constituting the national character of the vessel, as the case may be.

ARTICLE VIII.—All merchants, commanders of ships, and others, the subjects of his Britannic Majesty, shall have full liberty, in all the territories of Mexico, to manage their own affairs themselves, or to commit them to the management of whomsoever they please, as broker, factor, agent, or interpreter ; nor shall they be obliged to employ any other persons for those purposes than those employed by Mexicans, nor to pay them any other salary or remuneration than such as is paid, in like cases, by Mexican citizens ; and absolute freedom shall be allowed, in all cases, to the buyer and seller, to bargain and fix the price of any goods, wares, or merchandise, imported into, or exported from Mexico, as they shall see good, observing the laws and established customs of the country. The same privileges shall be enjoyed in the dominions of his Britannic Majesty, by the citizens of Mexico, under the same conditions.

The citizens and subjects of the contracting parties, in the territories of each other, shall receive and enjoy full and perfect protection for their persons and property, and shall have free and open access to the courts of justice in the said countries, respectively, for the prosecution and defence of their just rights ; and they shall be at liberty to employ, in all causes, the advocates, attorneys, or agents of whatever description, whom they may think proper ; and they shall enjoy, in this respect, the same rights and privileges therein, as native citizens.

ARTICLE IX.—In whatever relates to the succession to personal estates, by will or otherwise, and the disposal of personal property of every sort and denomination, by sale, donation, exchange, or testament, or in any other manner whatsoever, as also the administration of justice, the subjects and citizens of the two contracting parties shall enjoy, in their respective dominions and territories, the same privileges, liberties, and rights, as native subjects ; and shall not be charged, in any of these respects, with any higher imposts or duties than those which are paid, or may be paid, by the native subjects, or citizens of the power in whose dominions or territories they may be resident.

ARTICLE X.—In all that relates to the police of the ports, the lading and unlading of ships, the safety of merchandise, goods, and effects, the subjects of his Britannic Majesty, and the citizens of Mexico, respectively, shall be subject to the local laws and regulations of the dominions and territories in which they may reside. They shall be exempted from all compulsory military service, whether by sea or land. No forced loans shall be levied upon them ; nor shall their property be subject to any other charges, requisitions, or taxes, than such as are paid by the native subjects or citizens of the contracting parties in their respective dominions.

ARTICLE XI.—It shall be free for each of the two contracting parties to appoint consuls for the protection of trade, to reside in the dominions and territories of the other party : but, before any consul shall act as such, he shall, in the usual form, be approved and admitted by the government to which he is sent ; and either of the contracting parties may except from the residence of consuls such particular places as either of them may judge fit to be excepted. The Mexican diplomatic agents and consuls shall enjoy, in the dominions of his Britannic Majesty, whatever privileges, exceptions, and immunities are or shall be granted to agents of the same rank belonging to the most favoured nation : and, in like manner, the diplomatic agents and consuls of his Britannic Majesty in the Mexican territories shall enjoy, according to the strictest reciprocity, whatever privileges, exceptions, and immunities are or may be granted to the Mexican diplomatic agents and consuls in the dominions of his Britannic Majesty.

ARTICLE XII.—For the better security of commerce between the subjects of his Britannic Majesty and the citizens of the Mexican states, it is agreed that if, at any time, any interruption of friendly intercourse, or any rupture should unfortunately take place between the two contracting parties, the merchants residing upon the coasts shall be allowed six months, and those of the interior a whole year, to wind up their accounts, and dispose of their property ; and that a safe conduct shall be given them to embark at the port which they shall themselves select. All those who are established in the respective dominions and territories of the two contracting parties, in

the exercise of any trade or special employment, shall have the privilege of remaining and continuing such trade and employment therein, without any manner of interruption, in full enjoyment of their liberty and property, as long as they behave peaceably, and commit no offence against the laws; and their goods and effects, of whatever description they may be, shall not be liable to seizure or sequestration, or to any other charges or demands than those which may be made upon the like effects or property, belonging to the native subjects or citizens of the respective dominions or territories in which such subjects or citizens may reside. In the same case, debts between individuals, public funds, and the shares of companies, shall never be confiscated, sequestered, or detained.

ARTICLE XIII.—The subjects of his Britannic Majesty, residing in the Mexican territories, shall enjoy, in their houses, persons and properties, the protection of the government; and, continuing in possession of what they now enjoy, they shall not be disturbed, molested, or annoyed in any manner, on account of their religion, provided they respect that of the nation in which they reside, as well as the constitution, laws, and customs of the country. They shall continue to enjoy, to the full, the privilege already granted to them of burying, in the places already assigned for that purpose, such subjects of his Britannic Majesty as may die within the Mexican territories; nor shall the funerals and sepulchres of the dead be disturbed in any way, or upon any account. The citizens of Mexico shall enjoy, in all the dominions of his Britannic Majesty, the same protection, and shall be allowed the free exercise of their religion, in public or private, either within their own houses, or in the chapels and places of worship set apart for that purpose.

ARTICLE XIV.—The subjects of his Britannic Majesty shall, on no account or pretext whatsoever, be disturbed or molested in the peaceable possession and exercise of whatever rights, privileges, and immunities they have at any time enjoyed within the limits described and laid down in a convention, signed between his said Majesty and the King of Spain, on the 14th of July, 1786; whether such rights, privileges, and immunities shall be derived from the stipulations of the said convention, or from any other concession which may at any time have been made by the King of Spain, or his predecessors, to British subjects and settlers residing and following their lawful occupations within the limits aforesaid: the two contracting parties reserving, however, for some more fitting opportunity the further arrangements on this article.

ARTICLE XV.—The government of Mexico engages to co-operate with his Britannic Majesty for the total abolition of the slave-trade, and to prohibit all persons inhabiting within the territories of Mexico, in the most effectual manner, from taking any share in such trade.

ARTICLE XVI.—The two contracting parties reserve to themselves the right of treating and agreeing hereafter, from time to time, upon such other articles as may appear to them to contribute still further to the improvement of their mutual intercourse, and the advancement of the general interests of their respective subjects and citizens; and such articles as may be so agreed upon, shall, when duly ratified, be regarded as forming a part of the present treaty, and shall have the same force as those now contained in it.

ARTICLE XVII.—The present treaty shall be ratified, and the ratifications shall be exchanged at London, within the space of six months, or sooner if possible.

In witness whereof the respective plenipotentiaries have signed the same, and have affixed thereto their respective seals.

Done at London, the twenty-sixth day of December, in the year of our Lord one thousand eight hundred and twenty-six.

(L.S.) WILLIAM HUSKISSON.
(L.S.) JAMES J. MORIER

Additional Articles.

ARTICLE I.—Whereas, in the present state of Mexican shipping, it would not be possible for Mexico to receive the full advantage of the reciprocity established by the Articles V., VI., VII. of the Treaty signed this day, if that part of the VIIth Article which stipulates that, in order to be considered as a Mexican ship, a ship shall actually have been built in Mexico, should be strictly and literally observed, and immediately brought into operation—it is agreed that, for the space of ten years, to be reckoned from the date of the exchange of the ratifications of this treaty, any ships, wheresoever built, being *bonâ fide* the property of, and wholly owned by one or more citizens of Mexico, and whereof the master and three-fourths of the mariners, at least, are also natural born citizens of Mexico, or persons domiciliated in Mexico, by act of the government, as lawful subjects of Mexico, to be certified according to the laws of that country, shall be considered as Mexican ships; his Majesty the King of the United Kingdom of Great Britain and Ireland reserving to himself the right, at the end of the said term of ten years, to claim the principle of reciprocal restriction stipulated for in the Article VII. above referred to, if the interests of British navigation shall be found to be prejudiced by the present exception to that reciprocity, in favour of Mexican shipping.

ARTICLE II.—It is further agreed that, for the like term of ten years, the stipulations contained

in Articles V. and VI. of the present treaty, shall be suspended ; and, in lieu thereof, it is hereby agreed that, until the expiration of the said term of ten years, British ships entering into the ports of Mexico from the United Kingdom of Great Britain and Ireland, or any of his Britannic Majesty's dominions, and all articles the growth, produce, or manufacture of the United Kingdom, or of any of the said dominions, imported in such ships, shall pay no other or higher duties than are or may hereafter be payable, in the said ports, by the ships, and the like goods, the growth, produce, or manufacture of the most favoured nation : and, reciprocally, it is agreed that Mexican ships entering into the ports of the United Kingdom of Great Britain and Ireland, or any other of his Britannic Majesty's dominions, from any port of the states of Mexico, and all articles the growth, produce, or manufacture of the said states, imported in such ships, shall pay no other or higher duties than are or may hereafter be payable, in the said ports, by the ships and the like goods, the growth, produce, or manufacture of the most favoured nation ; and that no higher duties shall be paid, or bounties or drawbacks allowed, on the exportation of any article the growth, produce, or manufacture of the dominions of either country, in the ships of the other, than upon the exportation of the like articles in the ships of any other foreign country.

It being understood that, at the end of the said term of ten years, the stipulations of the said Vth and VIth Articles shall, from thenceforward, be in full force between the two countries.

The present additional articles shall have the same force and validity as if they were inserted, word for word, in the treaty signed this day. They shall be ratified, and the ratifications shall be exchanged at the same time.

Treaty of Amity, Commerce, and Navigation, between His Majesty and the United Provinces of Rio de la Plata. Signed at Buenos Ayres, February 2, 1825.

ARTICLE I. There shall be perpetual amity between the dominions and subjects of his Majesty the King of the United Kingdom of Great Britain and Ireland, and the United Provinces of Rio de la Plata and their inhabitants.

ARTICLE II. There shall be, between all the territories of his Britannic Majesty in Europe, and the territories of the United Provinces of Rio de la Plata, a reciprocal freedom of commerce. The inhabitants of the two countries, respectively, shall have liberty freely and securely to come, with their ships and cargoes, to all such places, ports, and rivers, in the territories aforesaid, to which other foreigners are or may be permitted to come, to enter into the same, and to remain and reside in any part of the said territories respectively; also to hire and occupy houses and warehouses for the purposes of their commerce ; and, generally, the merchants and traders of each nation, respectively, shall enjoy the most complete protection and security for their commerce ; subject always to the laws and statutes of the two countries respectively.

ARTICLE III. Same as third article in Mexican treaty.

ARTICLE V. No higher or other duties or charges on account of tonnage, light, or harbour dues, pilotage, salvage in case of damage or shipwreck, or any other local charges, shall be imposed, in any of the ports of the said United Provinces, on British vessels of the burthen of above 120 tons, than those payable in the same ports by vessels of the said United Provinces of the same burthen ; nor in the ports of any of his Britannic Majesty's territories, on the vessels of the United Provinces of above 120 tons, than shall be payable in the same ports on British vessels of the same burthen.

ARTICLE VI. Same as in Mexican treaty.

ARTICLE VII. In order to avoid any misunderstanding with respect to the regulations which may respectively constitute a British vessel or a vessel of the said United Provinces, it is hereby agreed that all vessels built in the dominions of his Britannic Majesty, and owned, navigated, and registered according to the laws of Great Britain, shall be considered as British vessels ; and that all vessels built in the territories of the said United Provinces, properly registered and owned by the citizens thereof, or any of them, and whereof the master and three-fourths of the mariners, at least, are citizens of the said United Provinces, shall be considered as vessels of the said United Provinces.

ARTICLE VIII.—All merchants, commanders of ships, and others the subjects of his Britannic Majesty, shall have the same liberty in all the territories of the said United Provinces as the natives thereof, to manage their own affairs themselves, or to commit them to the management of whomsoever they please as broker, factor, agent, or interpreter ; nor shall they be obliged to employ any other persons for those purposes, nor to pay them any salary or remuneration unless they shall choose to employ them ; and absolute freedom shall be allowed, in all cases, to the buyer and seller to bargain and fix the price of any goods, wares, or merchandise imported into, or exported from, the said United Provinces, as they shall see good.

ARTICLE IX.—In whatever relates to the lading and unloading of ships, the safety of merchandise, goods, and effects, the disposal of property of every sort and denomination, by sale, donation, or exchange, or in any other manner whatsoever, as also the administration of justice, the subjects and citizens of the two contracting parties shall enjoy, in their respective dominions, the same

privileges, liberties, and rights as the most favoured nation, and shall not be charged, in any of these respects, with any higher duties or imposts than those which are paid, or may be paid by the native subjects or citizens of the power in whose dominions they may be resident. They shall be exempted from all compulsory military service whatsoever, whether by sea or land, and from all forced loans or military exactions or requisitions; neither shall they be compelled to pay any ordinary taxes under any pretext whatsoever, greater than those that are paid by native subjects or citizens.

ARTICLE X.—It shall be free for each of the two contracting parties to appoint consuls for the protection of trade, to reside in the dominions and territories of the other party; but before any consul shall act as such he shall, in the usual form, be approved and admitted by the government to which he is sent; and either of the contracting parties may except from the residence of consuls such particular places as either of them may judge fit to be so excepted.

ARTICLE XI.—For the better security of commerce between the subjects of his Britannic Majesty and the inhabitants of the United Provinces of Rio de la Plata, it is agreed that if at any time any interruption of friendly commercial intercourse, or any rupture should unfortunately take place between the two contracting parties, the subjects or citizens of either of the two contracting parties residing within the dominions of the other shall have the privilege of remaining and continuing their trade therein, without any manner of interruption, so long as they behave peaceably and commit no offence against the laws; and their effects and property, whether intrusted to individuals or to the state, shall not be liable to seizure or sequestration, or to any other demands than those which may be made upon the like effects or property belonging to the native inhabitants of the state in which such subjects or citizens may reside.

ARTICLE XII.—The subjects of his Britannic Majesty residing in the United Provinces of Rio de la Plata shall not be disturbed, persecuted, or annoyed on account of their religion, but they shall have perfect liberty of conscience therein, and to celebrate divine service either within their own private houses or in their own particular churches or chapels, which they shall be at liberty to build and maintain in convenient places, approved of by the government of the said United Provinces: liberty shall also be granted to bury the subjects of his Britannic Majesty who may die in the territories of the said United Provinces in their own burial places, which, in the same manner, they may freely establish and maintain. In the like manner, the citizens of the said United Provinces shall enjoy, within all the dominions of his Britannic Majesty, a perfect and unrestrained liberty of conscience, and of exercising their religion publicly or privately, within their own dwelling-houses or in the chapels and places of worship appointed for that purpose, agreeably to the system of toleration established in the dominions of his said majesty.

ARTICLE XIII.—Same as ninth article in Mexican treaty,

ARTICLE XIV.—His Britannic Majesty being extremely desirous of totally abolishing the slave trade, the United Provinces of Rio de la Plata engage to co-operate with his Britannic Majesty for the completion of so beneficent a work, and to prohibit all persons inhabiting within the said United Provinces, or subject to their jurisdiction, in the most effectual manner and by the most solemn laws from taking any share in such trade.

*Treaty of Amity, Commerce, and Navigation, between Great Britain and Colombia.
Signed at Bogota, 18th April, 1825.*

ARTICLE I.—There shall be perpetual, firm, and sincere amity between the dominions and subjects of his Majesty the King of the United Kingdom of Great Britain and Ireland, his heirs and successors, and the state and people of Colombia.

ARTICLE II.—There shall be between all the territories of his Britannic Majesty in Europe and the territories of Colombia a reciprocal freedom of commerce. The subjects and citizens of the two countries, respectively, shall have liberty freely and securely to come, with their ships and cargoes, to all such places, ports, and rivers, in the territories aforesaid, to which other foreigners are or may be permitted to come, to enter into the same, and to remain and reside in any part of the said territories respectively; also to hire and occupy houses and warehouses for the purposes of their commerce; and, generally, the merchants and traders of each nation respectively shall enjoy the most complete protection and security for their commerce, subject always to the laws and statutes of the two countries respectively.

ARTICLES III. IV. V. and VI.—Same as in Mexican treaty.

ARTICLE VII.—In order to avoid any misunderstanding with respect to the regulations which may respectively constitute a British or a Colombian vessel, it is hereby agreed that all vessels built in the dominions of his Britannic Majesty and owned by British subjects, or by any of them, and whereof the master and three-fourths of the mariners, at least, are British subjects, excepting where the laws provide for any extreme case, shall be considered as British vessels; and that all vessels built in the territories of Colombia, and owned by the citizens thereof, or any of them, and whereof the master and three-fourths of the mariners, at least, are Colombian citizens, excepting where the laws provide for any extreme cases, shall be considered as Colombian vessels.

ARTICLES VIII., IX., X., XI., and XII.—Same as in treaty with Buenos Ayres.

ARTICLE XIII.—The government of Colombia engages to co-operate with his Britannic Majesty for the total abolition of the slave trade, and to prohibit all persons inhabiting within the territories of Columbia, in the most effectual manner, from taking any share in such trade.

ARTICLE XIV.—And forasmuch as it would be convenient and useful for the purpose of facilitating the mutual good understanding between the two contracting parties, and for avoiding all difficulties henceforward, that other articles should be proposed and added to the present treaty, which articles, both from a want of due time for their consideration, as well as from the pressure of circumstances, cannot at present be drawn up with required perfection, it has been and is agreed, on the part of both powers, that they will, with the least possible delay, come forward to treat and agree upon such articles as may be wanting to this treaty and deemed mutually beneficial, and which articles, when they shall be agreed upon and shall be duly ratified, shall form part of the present treaty of amity, commerce, and navigation.

Additional Article.

Whereas in the present state of the Colombian shipping, it would not be possible or Colombia to take advantage of the reciprocity established by Articles V., VI., and VII. of the treaty signed this day, if that part should be carried into immediate effect which stipulates that in order to be considered a Colombian ship a ship shall actually have been built in Colombia—it is agreed that for the space of seven years, to be reckoned from the date of the ratification of this treaty, any ships, wheresoever built, being *bond fide* the property of any of the citizens of Colombia, and whereof the master and three-fourths of the mariners, at least, are also Colombian citizens excepting where the laws provide for any extreme cases, shall be considered as Colombian ships;—his Majesty the King of the United Kingdom of Great Britain and Ireland reserving to himself the right, at the end of the said term of seven years, to claim the principle of reciprocal restriction stipulated in article VII. above referred to, if the interests of British navigation shall be found to be prejudiced by the present exception to that reciprocity, in favour of Colombian shipping.

The present additional article shall have the same force and validity as if it were inserted, word for word, in the treaty signed this day. It shall be ratified, and the ratification shall be exchanged at the same time.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto the seals of their arms.

Convention between His Majesty and the State of Venezuela. Signed at London, 29th October, 1834.

Whereas a treaty of amity, commerce, and navigation, consisting of fifteen articles, was concluded between his Majesty the King of the United Kingdom of Great Britain and Ireland and the state of Colombia, which said treaty, together with an additional article thereto, was signed at Bogotá, on the 18th day of April, 1825; and whereas, after reciting that extensive commercial intercourse having been established for a series of years between the dominions of his Britannic Majesty in Europe and the several provinces and countries of America which (then united) constituted the state of Colombia, it seemed good for the security as well as encouragement of such commercial intercourse, and for the maintenance of good understanding between his said Britannic Majesty and the said state, that the relations then subsisting between them should be regularly acknowledged and confirmed by the signature of a treaty of amity, commerce, and navigation; it was in and by the said treaty declared and agreed that, under certain regulations and conditions therein specified, there should be reciprocal freedom of commerce between the territories of his Britannic Majesty in Europe and the territories of Colombia: and whereas at the signing of the said treaty, the provinces of Venezuela were united with, and formed a component part of, the state of Colombia, but have since that time finally and entirely separated themselves therefrom, and from all other countries or provinces then or now united therewith, and have become a separate and independent state under a distinct government: and whereas it is desirable that the commercial relations or intercourse now or lately subsisting between the territories of his Britannic Majesty in Europe and the territories of the state of Venezuela respectively, should continue and be carried on in the same manner, and under the same regulations and conditions as are expressed and specified in the aforesaid treaty between his said majesty and the state of Colombia, and that his majesty should acknowledge the independence of the said state of Venezuela; it has been accordingly agreed to conclude a convention for the purposes aforesaid.

ARTICLE I.—His Majesty the King of the United Kingdom of Great Britain and Ireland and the state of Venezuela, the independence of which state is hereby acknowledged, recognised, and declared by his said majesty, mutually agree to adopt and confirm, as effectually as if the same were inserted word for word therein, the several articles and provisions of the aforesaid treaty con-

cluded between his said Majesty and the state of Colombia, together with the aforesaid additional article thereto ; and that all the matters and things contained in such treaty and additional article shall, *mutatis mutandis*, from and after the conclusion of the present convention, be applied to the high contracting parties, their subjects and citizens, as effectually as if they were recited word for word herein ; confirming and approving hereby all matters and things done or to be done by their respective subjects and citizens, under the aforesaid treaty, and in execution thereof.

ARTICLE II.—The high contracting parties further mutually agree to adopt and confirm, as part of the present convention, as effectually as if the same were inserted word for word herein, the declaration explanatory of that part of the VIIth article of the aforesaid treaty concluded between his Britannic Majesty and the state of Colombia, wherein it was defined what ships should be considered as entitled to the privileges of British and Colombian ships, which declaration was signed at London on the 7th day of November, 1825, by the Right Honourable George Canning, then his Britannic Majesty's Principal Secretary of State for Foreign Affairs, on behalf of his said majesty, and by Señor Manuel José Hurtado, plenipotentiary of the state of Colombia, on behalf of the said state ; and that the said declaration, and the several provisions therein contained shall, from and after the ratification of the present convention, *mutatis mutandis*, be applied to his said majesty and his subjects, and to the said state of Venezuela and its citizens, as effectually as if the same were inserted word for word herein.

PERU.

Treaty of Amity, Commerce, and Navigation, between his Britannic Majesty and the Peru-Bolivian Confederation. Signed at Lima, June 5, 1837.

ARTICLE I.—Extensive commercial intercourse having been established for some time between the dominions of his Britannic Majesty and the States which compose the Peru-Bolivian Confederation, it seems good for the security as well as the encouragement of such commercial intercourse, and for the maintenance of good understanding between his Britannic Majesty and the said Confederation, that the relations now subsisting between them should be regularly acknowledged and confirmed by the signature of a treaty of amity, commerce, and navigation.

ARTICLES II., III., IV., V., VI., VII., VIII.—Same as in Mexican treaty.

ARTICLE IX.—In whatever relates to the police of the ports, the lading and unlading of ships, the safety of merchandise, goods, and effects, the succession to personal estates by will or otherwise, and the disposal of personal property of every sort and denomination, by sale, donation, exchange, or testament, or in any other manner whatsoever, as also the administration of justice, the subjects and citizens of the two contracting parties shall enjoy, in their respective dominions and territories, the same privileges, liberties, and rights as native subjects ; and shall not be charged, in any of these respects, with any higher imposts or duties than those which are paid, or may be paid, by the native subjects or citizens of the power in whose dominions or territories they may be resident ; subject of course to the local laws and regulations of such dominions or territories.

In the event of any subject or citizen of either of the two contracting parties dying without will or testament, in the dominions or territories of the said contracting parties, the consul-general or consul of the said nation, or, in his absence, his representative, shall have the right to nominate curators, to take charge of the property of the deceased, so far as the laws of each country will permit, for the benefit of his lawful heirs and creditors, without interference, giving convenient notice thereof to the authorities of the countries.

ARTICLE X.—The subjects of his Britannic Majesty residing in the Peru-Bolivian Confederation, and the natives and citizens of the Peru-Bolivian Confederation residing in the dominions of his Britannic Majesty, shall be exempted from all compulsory military service whatsoever, whether by sea or land, and from all forced loans, or military exactions or requisitions ; neither shall they be compelled under any pretext whatsoever, to pay any other ordinary charges, requisitions, or taxes greater than those that are paid by native subjects or citizens of the territories of the contracting parties, respectively.

ARTICLES XI. and XII.—Same as in Mexican treaty.

ARTICLE XIII.—The subjects of his Britannic Majesty, and the citizens of the Peru-Bolivian Confederation, respectively, shall enjoy in their houses, persons, and properties, the protection of the government, and continue in possession of the privileges which they now enjoy. And the subjects of his Britannic Majesty residing in the territories of the Peru-Bolivian Confederation, shall furthermore enjoy the most perfect and entire security of conscience, without being annoyed, molested, or disturbed on account of their religious belief. Neither shall they be annoyed, mo-

lested, or disturbed in the proper exercise of their religion, provided that this take place in private houses, and with a decorum due to divine worship, with due respect to the laws, usages, and customs of the country. In the like manner, the citizens of the Peru-Bolivian Confederation shall enjoy, within all the dominions of his Britannic Majesty, a perfect and unrestrained liberty of conscience, and of exercising their religion publicly or privately, within their own dwelling-houses, or in the chapels and places of worship appointed for that purpose, agreeably to the system of toleration established to the dominions of his said Majesty. Liberty shall also be granted to bury the subjects or citizens of either of the two contracting parties, who may die in the dominions or territories of the other, in burial places of their own, which, in the same manner, they may freely establish and maintain; nor shall the funerals or sepulchres of the dead be disturbed in any way, or upon any account.

ARTICLES XIV., XV., XVI.—Same as in Mexican treaty.

Additional Articles.

ARTICLE I.—Whereas, in the present state of Peru-Bolivian shipping, it would not be possible for the said Confederation to receive the full advantage of the reciprocity established by the Articles V., VI., and VII., of the treaty signed this day, if that part of the VIIth Article which stipulates that, in order to be considered as a Peru-Bolivian ship, a ship shall actually have been built in the Peru-Bolivian Confederation, should be strictly and literally observed, and immediately brought into operation; it is agreed that, for the space of fifteen years, to be reckoned from the date of the exchange of the ratifications of this treaty, any ships, wheresoever built being *bonâ fide* the property of, and wholly owned by, one or more citizens of the Peru-Bolivian Confederation, and whereof the master and three-fourths of the mariners at least are also natural born citizens of the Peru-Bolivian Confederation, or persons domiciled in the Peru-Bolivian Confederation by act of the government, as lawful subjects of the Peru-Bolivian Confederation, to be certified according to the laws of that country, shall be considered as Peru-Bolivian ships; his Majesty the King of the United Kingdom of Great Britain and Ireland reserving to himself the right, at the end of the said term of fifteen years, to claim the principle of reciprocal restriction stipulated for in the Article VII. above referred to, if the interests of British navigation shall be found to be prejudiced by the present exception to that reciprocity, in favour of Peru-Bolivian shipping.

ARTICLE II.—It is further agreed that, for the like term of fifteen years, the stipulations contained in the Articles V. and VI. of the present treaty shall be suspended; and, in lieu thereof, it is hereby agreed, that until the expiration of the said term of fifteen years, British ships entering into the ports of the Peru-Bolivian Confederation, from the United Kingdom of Great Britain and Ireland, or any other of his Britannic Majesty's dominions, and all articles the growth, produce, or manufacture of the United Kingdom, or of any of the said dominions, imported in such ships, shall pay no other or higher duties than are or may hereafter be payable in the said ports by the ships, and the like goods, the growth, produce, or manufacture of the most favoured nation; and, reciprocally, it is agreed that Peru-Bolivian ships entering into the ports of the United Kingdom of Great Britain and Ireland, or any other of his Britannic Majesty's dominions, from any port of the Peru-Bolivian Confederation, and all articles, the growth, produce, or manufacture of the said Confederation, imported in such ships, shall pay no other or higher duties than are or may hereafter be payable in the said ports, by the ships and the like goods, the growth, produce, or manufacture of the most favoured nation; and that no higher duties shall be paid, or bounties or drawbacks allowed, on the exportation of any article, the growth, produce, or manufacture of the dominions of either country, in the ships of the other, than upon the exportation of the like articles in the ships of any other foreign country.

It being understood that, at the end of the said term of fifteen years, the stipulations of the said Vth and VIth Articles shall, from thenceforward, be in full force between the two countries.

The present additional articles shall have the same force and validity as if they were inserted, word for word, in the Treaty signed this day. They shall be ratified, and the ratifications shall be exchanged at the same time.

Treaty of Amity, Commerce, and Navigation, between his Majesty and the Republic of Bolivia. Signed at Sucre, September 29, 1840.

ARTICLES I., II., III., IV., V., VI., VII., VIII., IX., X.—Same as in Mexican and Peru-Bolivian Treaty.

ARTICLES XI. and XII.—Same as in Mexican Treaty.

ARTICLES XIII. and XIV.—Same as in Peru-Bolivian Treaty.

ARTICLES XV. and XVI.—Same as in Mexican Treaty.

Additional Articles.

ARTICLE I.—Whereas, in the present state of Bolivian shipping, it would not be possible for the said republic to receive the full advantage of the reciprocity established by the Articles V., VI., and VII. of the Treaty signed this day, if that part of the VIIth Article, which stipulates that, in order to be considered as a Bolivian ship, a ship shall actually have been built in the republic of Bolivia, should be strictly and literally observed, and immediately brought into operation; it is agreed that, for the space of fifteen years, to be reckoned from the date of the exchange of the ratifications of this Treaty, any ships, wheresoever built, being *bond fide* the property of, and wholly owned by, one or more citizens of the republic of Bolivia, and whereof the master and three-fourths of the mariners, at least, are also natural born citizens of the republic of Bolivia, or persons domiciled in the republic of Bolivia by act of the government, as lawful subjects of the republic of Bolivia, to be certified according to the laws of that country, shall be considered as Bolivian ships; her Majesty the Queen of the United Kingdom of Great Britain and Ireland reserving to herself the right, at the end of the said term of fifteen years, to claim the principle of reciprocal restriction stipulated for in the Article VII. above referred to, if the interests of British navigation shall be found to be prejudiced by the present exception to that reciprocity, in favour of Bolivian shipping.

ARTICLE II.—It is further agreed that, for the like term of fifteen years, the stipulations contained in the Articles V. and VI. of the present Treaty shall be suspended; and, in lieu thereof, it is hereby agreed, that until the expiration of the said term of fifteen years, British ships entering into the ports of the republic of Bolivia from the United Kingdom of Great Britain and Ireland, or any other of her Britannic Majesty's dominions, and all articles, the growth, produce, or manufacture of the United Kingdom, or of any of the said dominions, imported in such ships, shall pay no other or higher duties than are or may hereafter be payable, in the said ports by the ships, and the like goods, the growth, produce, or manufacture of the most favoured nation; and, reciprocally, it is agreed that Bolivian ships entering into the ports of the United Kingdom of Great Britain and Ireland, or any other of her Britannic Majesty's dominions, from any port of the republic of Bolivia, and all articles the growth, produce, or manufacture of the said republic, imported in such ships, shall pay no other or higher duties than are or may hereafter be payable in the said ports, by the ships and the like goods, the growth, produce, or manufacture of the most favoured nation; and that no higher duties shall be paid, or bounties and drawbacks allowed on the exportation of any article, the growth, produce, or manufacture of the dominions of either country, in the ships of the other, than upon the exportation of the like articles in the ships of any other foreign country.

It being understood that, at the end of the said term of fifteen years, the stipulations of the said Vth and VIIth Articles shall, from thenceforward, be in full force between the two countries.

ARTICLE III.—If in the drawing up of this Treaty in the Spanish language, an involuntary error has been made in the translation, the English text is to be adhered to.

The present additional articles shall have the same force and validity as if they were inserted, word for word, in the Treaty signed this day. They shall be ratified, and the ratifications shall be exchanged at the same time.

Treaty of Amity, Commerce, and Navigation between her Majesty and the Oriental Republic of the Uruguay: Signed at London, August 26, 1842.

ARTICLES I. and II.—Same as in Mexican Treaty.

ARTICLE III.—There shall be reciprocal liberty of commerce and navigation between and amongst the subjects and citizens of the two high contracting parties; and the subjects and citizens of the two countries, respectively, shall not pay in the ports, harbours, roads, cities, towns, or places whatsoever in either country, any other or higher duties, taxes, or imposts, under whatsoever names designated or included, than those which are there paid by the subjects or citizens of the most favoured nation; and the subjects and citizens of each of the high contracting parties shall enjoy the same rights, privileges, liberties, favours, immunities, and exemptions, in matters of commerce and navigation, that are granted, or may hereafter be granted, in either country, to the subjects or citizens of the most favoured nation.

No duty of customs or other impost shall be charged upon any goods the produce of one country, upon importation by sea or by land from such country into the other, higher than the duty or impost charged upon goods of the same kind, the produce of, or imported from, any other country. And her Majesty the Queen of the United Kingdom of Great Britain and Ireland, and the Oriental Republic of the Uruguay, do hereby bind and engage themselves not to grant any favour, privilege, or immunity in matters of commerce and navigation, to the subjects or citizens of any other State, which shall not be also and at the same time extended to the subjects or citizens of the other high contracting party; gratuitously, if the concession in favour of that

other State shall have been gratuitous ; and on giving as nearly as possible the same compensation or equivalent, in case the concession shall have been conditional.

ARTICLES IV., V., VI.—Same as in Mexican Treaty.

ARTICLE VII.—The subjects of her Britannic Majesty shall have full liberty, in all the territories of the Oriental Republic of the Uruguay, to manage their own affairs themselves, or to commit them to the management of whomsoever they please, as broker, factor, agent, or interpreter ; and they shall not be obliged to employ any other persons in those capacities, than those employed by the citizens of the Oriental Republic of the Uruguay ; and they shall not be restrained in their choice of persons to act in such capacities, nor be obliged to pay them any other salary or remuneration than such as is paid in like cases by the citizens of the said republic ; and absolute freedom shall be allowed in all cases to the buyer and seller to bargain and fix the price of any goods, wares, or merchandise imported into and exported from the Oriental Republic of the Uruguay, as they shall see fit, provided they observe the laws and established customs of the country. The same privileges shall be enjoyed in the dominions of her Britannic Majesty by the citizens of the Oriental Republic of the Uruguay, under the same conditions.

The subjects and citizens of each of the contracting parties, respectively, shall, in the territories of the other, receive and enjoy full and perfect protection for their persons and property, and shall have free and open access to the courts of justice in the said countries, respectively, for the prosecution and defence of their just rights ; and they shall be at liberty to employ, in all causes, the advocates, attorneys, or agents of whatever description, whom they may think proper ; and they shall enjoy, in this respect, the same rights and privileges therein, as native citizens.

ARTICLE VIII.—In whatever relates to the police of ports, the lading and unlading of ships, the safety of merchandise, goods, and effects, the succession to personal estates by will or otherwise, and the disposal of personal property, of every sort and denomination, by sale, donation, exchange, or in any other manner whatsoever ; and to the administration of justice ; the subjects and citizens of each of the two contracting parties shall enjoy, in the dominions and territories of the other, the same privileges, liberties, and rights, as native subjects or citizens ; and they shall not be charged, in any of these respects, with any higher imposts or duties than those which are or may be paid by natives ; conforming of course to the local laws and regulations of such dominions or territories.

And it is further agreed, that the subjects and citizens of the two contracting parties shall have and enjoy, in all the dominions or territories of each other, the most full and perfect liberty to devise or dispose of their property and effects of every kind and denomination, and wheresoever situate, by will or testament, to such person or persons, and in such proportions as their own free will may dictate.

If any subject or citizen of either of the two contracting parties should die without will or testament in the dominions or territories of the other, the consul-general or consul, or, in his absence, the representative of such consul-general or consul, shall have the right to nominate curators to take charge of the property of the deceased, so far as the laws of the country will permit, for the benefit of the lawful heirs and creditors of the deceased, without being interfered with by the authorities of the country, but giving to those authorities due and proper notice.

ARTICLE IX.—The subjects of her Britannic Majesty residing in the territories of the Oriental Republic of the Uruguay, and the citizens of the said Republic residing in the dominions of her Britannic Majesty, shall be exempted from all compulsory military service whatsoever, either by sea or land, and from all forced loans or military exactions or requisitions.

Neither shall they be compelled, under any pretext whatsoever, to pay any charges, requisitions, or taxes, greater than those which are or may be paid by native subjects or citizens of the territories in which they reside.

ARTICLE X.—It shall be free for each of the two contracting parties to appoint consuls for the protection of trade, to reside in the dominions and territories of the other party ; but no consul shall act as such, until he shall, in the usual form, be approved and admitted by the government to which he is sent ; and either of the contracting parties may except from the residence of consuls such particular places as they may judge fit to be excepted. The diplomatic agents and consuls of the Oriental Republic of the Uruguay, in the dominions of her Britannic Majesty, shall enjoy whatever privileges, exemptions, and immunities, are or may there be granted to agents of the same rank belonging to the most favoured nation ; and in like manner, the diplomatic agents and consuls of her Britannic Majesty in the territories of the Oriental Republic of the Uruguay, shall enjoy, according to the strictest reciprocity, whatever privileges, exemptions, and immunities, are or may there be granted to the diplomatic agents and consuls of the most favoured nation.

ARTICLE XI.—Same as Article XIII. in Mexican Treaty.

ARTICLE XII.—Same as Article XIII. in Peru-Bolivian Treaty.

ARTICLE XIII.—The present Treaty shall be in force for the term of ten years from the date thereof ; and further, until the end of twelve months after either of the high contracting parties

shall have given notice to the other of its intention to terminate the same : each of the high contracting parties reserving to itself the right of giving such notice to the other at the end of the said term of ten years, or at any subsequent time.

And it is hereby agreed between them, that at the expiration of twelve months after such notice shall have been received by either party from the other, this Treaty, and all the provisions thereof, shall altogether cease and determine.

ADDITIONAL ARTICLE.—Whereas by Article IX. of the Treaty of Amity, Commerce, and Navigation, concluded and signed this day between her Britannic Majesty and the Oriental Republic of the Uruguay, it is stipulated that the subjects of her Britannic Majesty, residing in the said Republic, shall not be compelled, under any pretext whatsoever, to pay any charges, requisitions, or taxes, greater than those which are or may be paid by native citizens ; and whereas, by a law of the Oriental Republic of the Uruguay, a foreigner pays for the licence to open a shop, or other establishment included in the provisions of the said law, a sum greater than that which is paid by a native citizen ; her Britannic Majesty engages, notwithstanding the provisions of the above-mentioned Article, not to insist upon the abolition of this distinction, so long as it exists impartially with regard to the subjects or citizens of every other foreign nation.

And his Excellency the President of the Oriental Republic of the Uruguay engages, on his part, that if at any future time, the amount payable by British subjects for such licence should be increased, a corresponding increase shall at the same time be made in the sum payable by native citizens of the Republic ; so that the proportion between the sum payable by British subjects and the sum payable by citizens of the Oriental Republic of the Uruguay, respectively, shall never be altered to the prejudice of British subjects.

The present additional article shall have the same force and validity as if it were inserted, word for word, in the Treaty signed this day. It shall be ratified, and the ratifications shall be exchanged at the same time.

SECOND ADDITIONAL ARTICLE.—Whereas a strict and immediate execution of that part of Article VI. of the Treaty of Amity, Commerce, and Navigation, signed at London on the 26th of August, 1842, between her Majesty the Queen of the United Kingdom of Great Britain and Ireland, and the Oriental Republic of the Uruguay, which stipulates that a ship must have been actually built within the territory of the Oriental Republic of the Uruguay, to be considered a ship of that Republic, would, in the present state of Uruguay shipping, deprive the Republic of the full advantage of the reciprocity intended to be established by the Treaty ; it is agreed that, for the space of seven years from the date of the exchange of the ratifications of the said Treaty, any ships, wheresoever built, being owned, navigated, and registered in conformity with the provisions of Article VI. of the Treaty, shall be considered as ships of the Oriental Republic of the Uruguay : her Majesty the Queen of the United Kingdom of Great Britain and Ireland reserving to herself the right to claim, at the end of the said term of seven years, the strict enforcement of all the stipulations contained in the said article of the Treaty, relative to the conditions which are to determine the national character of vessels of the Oriental Republic of the Uruguay.

The present additional article shall have the same force and validity as if it had been inserted, word for word, in the aforesaid Treaty of the 26th of August, 1842. It shall be ratified, and the ratifications shall be exchanged at the same time and place as those of the Treaty.

BRAZIL.

The *Commercial Treaty* with Brazil has expired in accordance with a notice given two years previously to that effect. No new Treaty has as yet been negotiated in consequence of excluding, by a prohibitory duty, sugar, the produce of Brazil by the British sugar duties acts of 1842, 1843, 1844, 1845.

CUSTOMS' TARIFF OF THE SPANISH AMERICAN REPUBLICS.

THE commercial regulations and custom-house prohibitions and duties of the Spanish American Republics have been characterised by barbarous restrictions and by ignorance of all sound principles of commerce and finance. The most absurd restrictions even upon internal traffic, and the most preposterous attempts to protect national industry, have been adopted since the independence of those states, and as suddenly and capriciously altered in form. These regulations, and prohibitions, and duties have, like the revolutions of those unfortunate countries, been suddenly and capriciously changed by every new ruler, but always to the great injury of trade and commerce.

Though the latest tables of duties which we have obtained may, in a very short period, be altered, we believe the changes will not, for some time, materially alter the amount of duty, nor the restrictions on trade.

MEXICO.

General Commercial Regulations for the Maritime and Frontier Custom-houses, according to the Laws of the 27th of August, 1845.

ARTICLE I.—Every vessel of whatever nation, not at war with Mexico, shall be admitted into such ports of the latter as are open to foreign commerce ; and in the act of arriving, the captain, or supercargo, and the crew, as well as the vessel and the cargo, shall be subjected to the regulations prescribed in this decree ; to the payment of duties, and to the penalties established by it, or to the measures in force at the time of arriving. Vessels shall therefore be considered as arrived for all the uses of this tariff immediately on casting anchor in the waters of the port.

ARTICLE II.—Vessels proceeding from a foreign port, not excepting national vessels, shall bring no more merchandise than is destined for the Mexican port to which they are bound. The breach of this article shall be punished by confiscating the vessel and the merchandise not destined to the same port.

ARTICLE III.—The following ports are open to foreign commerce :

In the Mexican Gulf	{ Sisal. Campeachy. Santa Juan Bautista de Tabasco. Vera Cruz. Santa Anna de Taumalipas. Matamoros. Matagorda. Velasco Galveston Acapulco. San Blas. Mazatlan.
In the Pacific	{ Mazatlan. Guaimas. Monterey.
In the Gulf of California	
In the Sea of Upper California	

Section I.

ARTICLE IV.—National vessels, conveying foreign or native goods, produce, or other effects from one port to another, or others in the republic, shall be free from tonnage duties.

ARTICLE V.—The following effects shall be free of all duties in whatever vessel they may be imported, viz. :

1. Card-wire.
2. Exotic or dissected animals.
3. Quicksilver.
4. Mineral coal, until the mines of the republic supply it.

5. Mineralogical and geological collections.
6. Objects of natural history.
7. Designs and models of machines, edifices, monuments, and shipping.
8. Bricks and earth for foundry furnaces.
9. Printing types.
10. Printed books, stitched and manuscript, or printed music, not including in this exemption books and other prints used for infant schools, or for devotion, and bound or half-bound books.
11. Topographical and geographical maps and charts.
12. Machines, apparatus, and instruments for scientific purposes.
13. Machines and apparatus for agriculture, mining, and the arts, except *stills* that are not of new invention. (In this and the preceding classification *machines* are understood to be such works as are composed of various pieces, with the object of putting into play mechanical power; and *apparatus* such works as are composed of various pieces adapted for experiments in physics, and the chemical affinities of bodies, solid, liquid, gaseous, or imponderable; things that can be sold separately, such as pig iron, oil, broad cloth, plush, skins, &c., though coming as connected with machinery, shall be subject to the payment of duties.)
14. Ancient and modern coins of all metals, and facsimiles of them in compositions or pasteboard.
15. Ship masts.
16. Exotic plants and their seeds.
17. New vessels of all kinds, destined to become naturalised.
18. Linen rags.
19. Printing ink.

ARTICLE VII. Such articles as are declared free of importation duties, shall also be free of all other duties in their transit through the country.

ARTICLE VIII. Although the effects enumerated in the 5th article shall be free of all duties, they must be entered in the general manifest of the vessel, and bring particular invoices with them made in conformity with what is prescribed in Article XXVIII. Goods arriving in the republic without said documents, and having a consignee, he shall pay only a fine of fifty dollars, but should there be no consignee to take charge of them immediately, the fine shall be levied on said effects, which in this case shall be 100 dollars, and the surplus effects shall be delivered to the respective consuls, that they may hold them at the disposal of whoever may have a right to them.

Section II.—Prohibitions.

ARTICLE IX.—The importation of the following effects is prohibited under the penalty of confiscation, and other penalties imposed by this tariff:

1. Brandy distilled from sugar-cane, and any other not from the grape, except gin and rum imported in bottles and jars.
2. Starch.
3. Aniseed, cumin, and caraway-seed.
4. Capers.
5. Sugar of all kinds.
6. Rice.
7. Raw Cotton.
8. Indigo.
9. Brass and copper wire of all kinds.
10. Fire-arms, and other arms of all kind.
11. Sulphur.
12. Boots and half-boots of leather or cloth, with soles for men, women, and children.
13. Buttons of every metal, which are engraved or stamped on the obverse or reverse with the national or Spanish arms.
14. Coffee.
15. Manufactured wax.
16. Cast nails of all sizes.
17. Copper in pigs, and manufactured into utensils for domestic use.

18. Cumin.
19. Tortoiseshell and horn, manufactured into articles of the latter material only.
20. Epaulettes of all kinds and metals for military insignia.
21. Cordovan leather of all kinds and qualities.
22. Tin in blocks.
23. All kinds of prints, miniatures, pictures, and figures that are obscene, and in general every article of workmanship that is obscene, and contrary to religion and good morals.
24. Artificial flowers.
25. All kinds of balloons made of metals or other materials.
26. Chamois leather of all kinds.
27. Woollen cloths of the poorest and coarsest kinds, called "gerga" and "gergue-tilla."
28. Wheat flour, except for Yucatan.
29. Every kind, number, and colour of cotton yarn.
30. Every kind, number, and colour of cotton thread.
31. Thread of cotton and linen mixed.
32. Soap of all kinds.
33. Children's toys.
34. Common earthenware, glazed or not glazed, printed or plain.
35. Books, pamphlets, and manuscripts prohibited by competent authority.
36. Blank books, ruled or not ruled, and invoices, bills of exchange, bills of lading, and forms of custom-house documents, whether printed, engraved or lithographed.
37. Hog's lard.
38. Molasses.
39. Timber of all kinds, excepting for ship masts, fine wood for veneers, and that permitted in Tampico and Matamoros by the decree of the 3rd of June, 1840, subject to the duties assigned to it.
40. Munitions of war, whether of lead, or any other metal.
41. Playing cards of all kinds.
42. Gold leaf or tinsel.
43. Broad cloth, not of the first quality.
44. Parchments, except for drawing.
45. Lead in the rough or refined.
46. Gunpowder, except for sporting.
47. Ploughshares of the same form as that used in the country.
48. "Rebosos" (cotton scarfs of the country) of all kinds, and all printed or clouded cloths, imitating them.
49. All kinds of ready-made clothing, including vestments and clerical ornaments.
(The following articles excepted :
 Bands and sashes, with or without fringe.
 Covered buttons of all kinds. Leather shirts.
 Stocking web, shirts and drawers, whether of silk, cotton, or wool.
 Silk scarfs.
 Netted, or elastic caps, whether of silk, cotton, or wool.
 Gloves.
 Stockings, hats, and suspenders.
 Handkerchiefs.
 Shawls, with and without linings.)
50. Common salt.
51. Saltpetre.
52. Blankets and coverlets of cotton or woollen, or of a mixture of both.
53. "Sayal" (a fabric made of wool and hair) and sayalete (a coarse woollen stuff called in some places taminy).
54. Tallow in the rough and refined.
55. Tobacco of all kinds and in every form. It can only be imported by the director of the tobacco monopoly, but private licences for cigars and rappee will be granted

by the government, in which case the duties will be paid at three dollars per pound.

56. Plain and ribbed cloths, bleached, and unbleached, made of cotton alone or mixed, that do not exceed thirty threads west and warp on a quarter inch.
57. Unbleached, twilled, and satin-faced cloths, made of cotton only or mixed, which do not exceed thirty threads west and warp on a quarter inch.
58. Plain coloured cloths of fast colours made of cotton only, or mixed, which do not exceed twenty-five threads west and warp on a quarter inch.

(When in this and other parts of the tariff colours are alluded to, it must be understood that the definition includes not only the colours which resist the action of water, soap, and light, but also those which do not resist them, but always retain enough colour to prevent them being used to the prejudice of the bleached and unbleached cottons manufactured in the country.)

59. Plain coloured cloths of fugitive colours, made of cotton only, or mixed, which do not exceed thirty threads under the quarter inch of west and warp.

60. Salt pork cured or pressed and the offal of pigs.

(In this prohibition are not included *sausages* and *smoked hams*.)

61. Wheat and all other grain.

62. Shoes and slippers.

With respect to manufactured articles of iron and steel, the following are exempted from the said prohibition, and they shall pay the corresponding duties:—

Awl blades.

Fish hooks.

Barrel hoop and hoop iron.

Gimlets.

Braces and bracebits.

Gravers.

Knives proper to the arts.

Strings for musical instruments.

Hand vices.

Hooks for dentists.

Files.

Saws.

Screws.

ARTICLE X. The law of the 29th of March, 1827, remains in force, inasmuch as the powers given by it to the states' legislatures for fixing the periods for allowing the importation, are exercised by the "juntas" of the departments.

ARTICLE XI. The importation of wheat into the state of Chiapas is permitted in such cases as the "junta" of the department shall determine.

Section III.—Of Duties on a Valuation to be fixed according to the prices of the Articles within the Republic.

ARTICLE XII. All goods, produce, and effects included in this tariff shall pay the rates designated in it.

The goods which exceed a vara in width shall be reduced to square measure, and the rate shall be collected on each square vara; but cloths under a vara wide, which are joined together by a seam or list, are not to be passed as a single piece, otherwise it will be held as a fraud. Those which are not specified in this tariff, shall pay an *ad valorem* duty of thirty per cent.

ARTICLE XIII.—The vessels, barrels, or bottles, which contain liquids, and the common wrappers of piece goods, including up to ten varas of inside wrapper, whether of linen, woollen, or cotton stuff not prohibited, will be exempt from duties, but if they exceed this length the whole shall pay duty according to this tariff, and should they be of a prohibited kind, they shall be confiscated.

SECTION IV.—Specific duties imposed according to fixed valuations on the basis of thirty per cent. These valuations are those which the goods are worth in Mexico, without any reference to the invoice prices. The following

ARTICLES.	Weight, Measure, or Num- ber.	Mexican Money.	British Money.	ARTICLES.	Weight, Measure, or Num- ber.	Mexican Money.	British Money.
		Import Duty.	Import Duty.			Import Duty.	Import Duty.
Oil, linseed.....	lb.	dhs. cts.	£ s. d.	Fine wood for veneers.....	1000 sq. ft.	dhs. cts.	£ s. d.
— olive.....	100 lbs.	5 0	1 6 10	Building-timber, admitted at Tampico and Matamoros by the decree of the 3rd of June, 1840.....		50 00	6 5 0
Steel.....	do.	2 00	0 8 4	Shingles for roofing, by virtue of the same decree.....	do.	10 00	2 1 8
Gin.....	do.	16 00	3 6 8	Butter, the weight of vessel included.....	thousand	2 00	0 8 4
Rum.....	do.	18 00	3 15 0	Common writing-paper.....	100 lbs.	8 00	1 13 4
Brandy from grape, pure or mixed, without allowance for leakage.....	do.	12 00	2 10 0	Letter-paper.....	quintal	12 00	2 10 0
Scented waters, of any herb, flower, or wood, including weight of vessel.....	lb.	0 16	0 0 8	Drawing-paper of all sizes, and ruled music-paper.....	do.	16 00	3 6 8
White lead.....	do.	0 12	0 0 6	Ruled paper for accounts, and other uses, and paper gilt and adorned on the surface.....	do.	16 00	3 6 8
Shelled almonds, sweet and bitter.....	100 lbs.	6 00	1 5 0	Paper-hangings.....	do.	24 00	5 6 0
Almonds, in the husk.....	do.	4 00	0 16 8	Paper for letter-press.....	do.	24 00	5 6 0
Tincal.....	lb.	0 12 $\frac{1}{2}$	0 0 6 $\frac{1}{2}$	Copying-press paper.....	do.	6 00	1 5 0
Cod-fish, and any other dried or smoked.....	100 lbs.	4 00	0 16 8	Sand-paper of all qualities.....	do.	16 00	3 6 8
Whalebone, in the rough or manufactured.....	lb.	0 14	0 0 7	Wrapping-paper.....	do.	7 00	1 9 2
Common glass bottles(empty)	dozen	0 75	0 3 1 $\frac{1}{2}$	Raisins, figs, and all other dried fruits.....	do.	3 00	0 12 6
Demi-johns.....	do.	1 00	0 4 2	Pepper, fine and commen- dary.....	100 lbs.	8 00	1 13 4
Guayaquil, Pars, or Island cocos.....	100 lbs.	4 00	0 16 8	Cheeses of all kinds, the weight of the wrappers included.....	do.	4 00	0 16 8
Cocos of any other kind.....	do.	8 00	1 13 4	Anchovies, salmon, tunny, and any other sea-fish in pickle, salted, dried, or in oil, the weight of the vessel included.....	do.	5 00	1 0 10
Paint-boxes, with paints in phials, or cakes of from twelve to forty-eight, and without any other addition — with paints in flasks, or cakes, with other articles.	dosen	3 33	0 18 11	Tea, black.....	lb.	0 50	0 2 1
Cinnamon and cassia of all kinds.....	each	1 33	0 5 7	— green.....	do.	0 75	0 3 1 $\frac{1}{2}$
Bees'-wax, bleached and un- bleached.....	lb.	1 00	0 4 3	Furniture, old and new, all kinds.....	100 lbs.	15 00	3 2 6
Virgin-wax.....	100 lbs.	22 00	4 11 8	Carriages or open chariots, two wheels.....	each	25 00	5 4 2
Beer and cider, in quart bottles, without allowance for leakage.....	lb.	20 00	4 3 4	— four wheels.....	do.	100 00	20 16 8
Beer and cider, in barrel, without allowing for leak- age.....	100 lbs.	8 00	1 13 4	— giga, two wheels.....	do.	50 00	10 8 4
Cloves.....	do.	4 00	0 16 8	— small carriages, two seats.....	do.	150 00	31 5 0
Batables, not prohibited, such as hams and sausages, the latter called "chorizos," "chorizones," and "butti- farres".	lb.	0 50	0 2 1	— coaches, landaus, two or more seats.....	do.	300 00	62 10 0
Preserves for eating, includ- ing weight of vessel con- taining them.....	100 lbs.	8 00	1 13 4	— stages and omnibus".	do.	100 00	20 16 8
Sweetmeats, ditto, ditto....	do.	25 00	5 4 2	Glasses or crystal, formed into pieces of all kinds, colours, and sizes, except window- glass, and plate-glasses, without allowance for breakage, gross weight.....	100 lbs.	6 00	1 5 0
Pickles in vinegar and salt.....	do.	50 00	10 8 4	Glassware of all other kinds, as window and plate.....	do.	10 00	2 1 8
Manufactured sperm.....	do.	16 00	3 6 8	Window-glasses, of all num- bers and colours, without any allowance for break- age—gross weight.....	do.	10 00	2 1 8
Sperm in cakes.....	do.	25 00	5 8 4	Vinegar.....	do.	10 00	2 1 8
Fruits preserved in brandy or other liquors, weight of vessel included.....	do.	19 50	3 14 2	White wines of all kinds, in barrel, without allowance for leakage.....	do.	3 00	0 12 4
Iron of all kinds, not manu- factured.....	quintal	1 50	0 6 3	— do. in bottle, do. do.	do.	2 50	0 10 5
— in plates, wrought and cast, and hoop-iron.....	do.	3 00	0 12 6	— do. in barrels, do. do.	do.	3 25	0 13 6 $\frac{1}{2}$
Tin-plates of all kinds and sizes.....	do.	4 50	0 18 9	Red do. in barrels, do. do.	do.	2 25	0 9 4 $\frac{1}{2}$
Books or pamphlets of first lessons or of devotion.....	100 lbs.	8 00	1 13 4	— do. in bottle, do. do.	do.	3 00	0 12 6

* In levying the duties on this kind of article, no distinction will be made between new and old, and it is understood that such vehicles may be prevented from running on the public ways, if their wheels are not of the size prescribed by the police.

ARTICLES of Flax, Hemp, Tow, and Grass.

ARTICLES.	Weight, Measure, or Num- ber.	Mexican Money.	British Money.	ARTICLES.	Weight, Measure, or Num- ber.	Mexican Money.	British Money.
		Import Duty.	Import Duty.			Import Duty.	Import Duty.
Hemp.....	quintal	dir. cts.	£ s. d.	Bleached and unbleached, more than thirty-six threads to the quarter inch.....	vara	dir. cts.	£ s. d.
Flax.....	do.	2 00	0 8 4	Plain cloths, made of the last-mentioned materials, painted, striped, or shaded, at and under a vara wide.....	vara	0 69	0 0 4½
Carpeting of hemp or tow alone, at and under a vara wide.....	vara	3 00	0 12 6	Bleached, unbleached, or coloured cloths figured, twilled or damasked, at and under a vara wide.....	do.	0 69	0 0 4½
Sheetings of flax or hemp, or imitations of them, at and under a vara wide.....	do.	0 12½	0 0 6½	Bleached, unbleached, and coloured cloths, embroidered, or with open work, at and under a vara wide.....	do.	0 11	0 0 6
Socks and half-stockings of all colours.....	dozen	0 75	0 3 1½	Men's and women's stockings of all kinds and colours.....	do.	0 18	0 0 9
Tapes of all kinds and colours.....	lb.	0 60	0 2 6	Children's do. do.	dosen	1 50	0 6 3
Gloves of all sizes and colours.....	dosen	0 75	0 3 1½	Plain, white, or coloured handkerchiefs, at and under a vara wide.....	do.	0 50	0 2 1
Linen-thread of all kinds, numbers, and colours.....	lb.	0 75	0 3 1½	do. a vara wide.....	do.	1 50	0 6 3
Twine of all kinds.....	100 lbs.	4 00	0 16 8				
Bleached, unbleached, and coloured cloths of hemp or hemp-tow, at and under a vara wide.....	vara	0 66	0 0 3				
Bleached and unbleached plain cloths, of flax, tow, or grass, at and under a vara wide.....	do.	0 68	0 0 4				

Note 1.—Handkerchiefs exceeding a vara square shall be reduced to square measure for calculating the corresponding duty.

Note 2.—If any of the cloths included in the foregoing classification have a mixture of cotton in them, they shall pay the same duty annexed to cottons of a similar quality. If the mixture be of a material different from cotton, such as metal or silk, the same rate of duty shall be imposed as on a similar quality which has no mixture.

ARTICLES of Wool, Hair, Feathers, and Furs.

ARTICLES.	Weight, Measure, or Num- ber.	Mexican Money.	British Money.	ARTICLES.	Weight, Measure, or Num- ber.	Mexican Money.	British Money.
		Import Duty.	Import Duty.			Import Duty.	Import Duty.
Wool, raw.....	100 lbs.	dir. cts.	£ s. d.	Men's and women's stockings of all kinds and colours... Children's do. do.	dosen	1 50	0 6 3
Floor-carpets and "trips" of all kinds, at and under a vara wide.....	vara	0 75	0 3 1½	Plain and fancy broad-cloths of all colours, a vara wide.....	do.	0 50	0 2 1
Socks and half-stockings of all colours.....	dosen	0 75	0 3 1½	Handkerchiefs, plain, wrought and twilled, of all colours, at and under a vara wide, exclusive of the fringe....	vara	1 00	0 4 2
Stocking-were, shirt, and drawers.....	each	0 50	0 2 1	White and coloured plain cloths, at and under a vara wide.....	do.	0 20	0 0 10
Twilled cassimere of all kinds and colours, at and under a vara.....	vara	0 75	0 3 1½	do. a vara wide.....	do.	0 12½	0 0 6½
Worsted-thread of all kinds and colours.....	lb.	0 60	0 2 6	Cloths of all colours, worked damasked, crossed, striped, and twilled, at and under a vara wide.....	do.	0 15	0 0 7½
Netted caps.....	dosen	3 00	0 12 6				
Gloves of all sizes and colours.....	do.	0 75	0 3 1½				

Note 1.—Handkerchiefs which exceed a square vara, shall be squared, and pay duties accordingly.

Note 2.—The cloths, included in this classification, having any mixture of cotton, shall pay, in addition to the rate annexed to them, fifteen per cent of the same rate. If the mixture be of any material different from cotton, such as metal or silk, they shall pay the rate annexed to a similar quality not mixed.

ARTICLE XVI.—Silks.

ARTICLES.	Weight, Measure, or Num- ber.	Mexican Money.	British Money.	ARTICLES.	Weight, Measure, or Num- ber.	Mexican Money.	British Money.
		Import Duty.	Import Duty.			Import Duty.	Import Duty.
Blond, and other lace and netting of all kinds and colours, plain and embroidered.....	dir. cts.	£ s. d.	Untwisted silk, or "quiña," of all qualities and colours.....	lb.	dir. cts.	£ s. d.	
Umbrellas and parasols of all sizes.....	lb.	12 00	2 10 0	Thrown silk, sewing silk, and chinelle, for embroidering, of all qualities and colours.....	do.	2 00	0 8 4
Unmanufactured silk of all qualities.....	each	1 25	0 5 2½	Plain and fancy silks of all fabrics, composed of silk only, or whatever quality or name.....	do.	3 00	0 12 6
	lb.	1 00	0 4 2		do.	3 00	0 12 6

Note.—The cloths, and other merchandise included in this classification, having a mixture of any other material not metal, shall pay the rate as if of silk only.

COTTON Manufactures.

ARTICLES.	Weight, Measure, or Num- ber.	Mexican Money.	British Money.	ARTICLES.	Weight, Measure, or Num- ber.	Mexican Money.	British Money.
		Import Duty.	Import Duty.			Import Duty.	Import Duty.
Socks and half-stockings....	dosen	dir. cts.	£ s. d.	Men's and women's stock- ings of all qualities and colours.....	dosen	dir. cts.	£ s. d.
Stocking-web, shirts, and drawers.....	each	0 80	0 3 4	Children's do.....	do.	1 50	0 6 3
White and coloured tapes...	lb.	0 50	0 2 1	Muslins, lincs, gaunes, and other white and coloured cotton cloths of an open texture, fancy and plain, without regard to the number of threads, at and under a vara wide.....	do.	0 50	0 2 1
Netted caps.....	dosen	0 75	0 3 1½	Printed, striped, and checked handkerchiefs, of fast col- ours, from twenty-six threads on the quarter inch, at and under a vara wide.....	do.	0 12½	0 0 6½
Gloves of all sizes and co- lours.....	do.	3 00	0 12 0	Plain white handkerchiefs, with white or coloured borders, exceeding thirty threads on the quarter inch, at and under a vara wide.....	do.	0 12½	0 0 6½
Bleached and unbleached cloths, ribbed and plain, exceeding thirty threads weft and warp on the quarter inch, at and under a vara wide.....	vara	0 75	0 3 1½	White handkerchiefs, twilled or with raised stripes or checks, at and under a vara wide.....	each	0 09	0 0 4½
Unbleached, twilled, or satin cloths, exceeding thirty threads weft and warp on the quarter inch, at and under a vara wide.....	do.	0 15	0 0 7½	do. with borders or cor- ners embroidered, or with open work, at and under a vara wide.....	do.	0 11	0 0 5½
Plain cloths, unbleached or striped, of fugitive colours, exceeding thirty threads on the quarter inch.....	do.	0 15	0 0 7½	White and coloured muslin handkerchiefs, without re- gard to number of threads, at and under a vara wide.	do.	0 14	0 0 7
White, twilled, or satin cloths, with or without embossing, raised face, or cut like velvet, at and under a vara wide.....	do.	0 15	0 0 7½	Lace of cotton, including boxes, &c.....	do.	0 16	0 0 8
Plain cloths, printed or dyed, striped or shaded, of fast colours, from twenty-six threads weft and warp on the quarter inch, at and under a vara wide.....	do.	0 15	0 0 7½	lb.	2 00	0 8 4	
Twilled, and all other cloths not plain, printed and dyed	do.	0 10	0 0 5				
Thread, cotton, or of cotton and wool, including the paper-packages.....	lb.	0 50	0 2 1				

Note 1.—All handkerchiefs which exceeds a square vara, shall be subject to pay duties, according to their kind, for the number of square varas they contain.

Note 2.—All the cloths included in this classification, although they may have a mixture of flax, hemp, grass, or tow, or any of them, shall pay the rate and duty as pure cotton, according to the description of cloth they are.

ARTICLE XVIII.—The weights and measures referred to in this tariff, and which shall regulate the collection of duties, are those of established usage in this Republic. The measures, therefore, are

The *vara*, of three feet long.

The *foot*, of twelve inches.

The *inch*, of twelve lines.

The weights are,—

The *quintal*, of four arrobas, is equal to 101 lbs. 7 ounces, averdupois.

The *arroba*, of twenty-five pounds.

The *pound*, of sixteen ounces, is equal to 1 lb. 4 drams nearly, averdupois.

The *ounce*, of sixteen drachms.

The *drachm*, of thirty-six grains. .

The moneys named for the payment of duties are,—

The *dollar*, of eight silver rials, in value equal to about 4s. 2d. sterling.

The *cents*, one hundred to each dollar.

Dry Measure.—The cahiz contains 12 fanegas; and the fanega, 12 celemines. The latter has many sub-divisions. The fanega is of the capacity of 3439 cubic inches, English, and is equal to 1.599 bushel.

Liquid Measure.—The mozo of wine contains 16 arrobas, or cantaros; an arroba, 8 azumbras, or 32 quartillos. A botta contains 30 arrobas. The arroba measures 981 cubic inches, English, and is equal to 4.245 gallons. The arroba of oil is equal to 3.33 gallons.

Long Measure.—The foot is divided into 12 pulgadas, and is equal to 11.128 inches, English. The palmo measures 9 pulgadas, or 8½ inches; the vara, 4 palmos, or 33.384 inches.

Section V.—Of the Formalities required to be observed previous to the departure of the Vessel from the Port of Shipment.

ARTICLE XXVII.—These formalities shall be observed :—

- 1st. By the shippers of goods to the Republic.
- 2nd. By the captains and supercargoes of the vessels which bring the said goods.
- 3rd. By the consuls, vice-consuls, or merchants, who certify the invoices of the shippers and the vessels' manifests in the mode expressed in the proper place.

Of the Shippers and Consignees of Goods.

ARTICLE XXVIII.—Any individual sending from a foreign country merchandise to the Mexican Republic, shall make one or more invoices (according as it suits him) of all the merchandise which he ships to each consignee. This invoice must contain the following particulars:—

- 1st. The name of the vessel and captain, and the port of Mexico to which the vessel is bound, together with the name of the party to whom the articles contained in said invoice are consigned.
- 2nd. The particulars in writing and cypher of the contents of all bales, cases, barrels, packs, or bundles in which each kind of merchandise comes.
- 3rd. The marks and numbers of each package.
- 4th. The name of the merchandise, and the particulars, in writing and cypher, of the quantity, weight, length, and breadth appertaining to the said merchandise, agreeably to what this tariff requires for the regulation of the payment of duties, it being understood that the width shall be expressed in the same kind of measure as the length.
- The liquids and commodities, whose duties are regulated according to this tariff by weight, the invoices must specify in the kind of weight that is in use at the port from whence the vessel comes, and must give all particulars as to what it is.
- 5th. The signature of the owner or shipper.
- 6th. The shipper shall present to the Mexican consul, or vice-consul, residing at his port, three copies of the invoice, and this officer shall certify each one in the manner required in the thirty-fifth article, and then deliver to the said shipper one of the copies to be sent to his consignee by said vessel. Should there be no Mexican consul or vice-consul in the port, these invoices shall be presented to the consul or vice-consul of any other nation at peace with Mexico; but should there be no such consul or vice-consul there, then said invoices may be certified by two merchants of known reputation resident in the port. The form of the certificate will be, in all cases, that prescribed by the thirty-fifth article.

ARTICLE XXIX.—For the neglect of any one of these six requisites the collector shall impose the penalties hereinafter expressed, and exact them from the consignee.

- 1st. For the omission of each one of the requisites, 1, 2, and 3, a fine not under five, and not above twenty-five dollars.
- 2nd. Omitting to explain in writing and cypher what is required in 4, will incur a penalty similar to the one stated in the preceding paragraph; but if the invoice do not specify the quantity, weight, or measure of the goods, the whole of that part of the cargo not so specified shall be examined, and the duties on this part shall be charged twenty-five per cent more than that fixed in this tariff.
- 3rd. When the signature of the shipper is wanting in the invoices, the omission shall be punished by a fine of from five to twenty-five dollars; but should the signature be wanting in one or two copies, which in all other respects agree with the one signed, no penalty shall be incurred; and if they should not agree the aforesaid fine will be levied, and the duties shall be rated according to the invoice which will yield the greatest amount of them.
- 4th. In case the consular certificate, or that of two merchants where there are no

- consuls, be wanting, the goods thus uncertified shall be placed in deposit for one month; during this time, should the consignee present certified invoices, the goods shall be despatched, without exacting any fine, but being longer in deposit without the required certificate being presented, they shall be confiscated.
- Where the certificate has been granted in any consulate, and the seal omitted, a fine shall be imposed of from ten to fifty dollars; but should this happen with respect to one or two of the copies, or that they be not certified at all, the penalty will be the same as that expressed in the preceding paragraph.

Great care is required in packing separately all articles liable to quick ignition by friction.

ARTICLE XXX.—All interpolations, corrections, scratchings, and erasures in the body of invoices are prohibited under a penalty of from fifty to two hundred dollars. Should any alteration be necessary, it shall be placed at the foot, and before the consular certificate, specifying clearly what is the alteration in the part or parts of said invoice, but without touching in any way the original writing, only in this way or in that expressed in Article XLI., can be admitted any alteration, otherwise the penalty imposed by this article shall be incurred.

ARTICLE XXXI.—Should the vessel have proceeded from two or more foreign ports, and have brought cargoes from each, she must bring invoices from each one of the goods taken on board at each place with the same number of copies and other requisites indicated in the preceding articles, and similar to those she brings from the first port of her sailing.

Of Captains of Vessels.

ARTICLE XXXII.—The duties of captains of vessels, spoken of in this tariff belong equally to supercargoes, when there are any.

ARTICLE XXXIII.—The captain of every vessel laden with any kind whatever of merchandise from a foreign port, must make a general manifest of them in triplicate, at the port of shipment, and this document shall specify:—

- 1st. The vessel's name and nation, the measurement of her tonnage in writing and cypher, the captain's name, the port of her departure, and the Mexican port to which she is bound.
- 2nd. The shippers' names and those of the consignees to whom the cargo is to be delivered.
- 3rd. The bales, cases, barrels, packs or packages of every kind, with their corresponding marks and numbers, the number of which shall be written in letters and cyphers, and each kind specified, whether they be bales or cases, &c.
- 4th. The general denomination of the merchandise shall be stated as it appears in the bills of lading.
- 5th. The date and signature of the captain.
- 6th. The captain shall present to the Mexican consul or vice-consul residing in the port from whence he sails, three copies of the manifest, in order that in each one may be written the certificate expressed in the thirty-fourth Article. Should there be no consuls or vice-consuls there, the provision stated in the sixth paragraph of the twentieth Article shall be observed.

ARTICLE XXXIV. For the omission of any of the first five conditions aforesaid, the captain shall be fined from five to twenty-five dollars, to be regulated by the collector.

ARTICLE XXXV.—In case the certificate alluded to in the sixth condition be omitted in the three copies of the manifest, the vessel, and all that belongs to it will be confiscated but the cargo will not be subject to this penalty provided its respective invoices and certificates are in order.

ARTICLE XXXVI.—The omission of the certificate, seal, or captain's signature, and any one of the three copies of the manifest shall be liable to similar fines as the omissions of a similar nature in the shipper's invoices.

ARTICLE XXXVII.—It will be the captain's duty to avoid the defects in his manifest spoken of in Article XXX., and in case there be any, to have them rectified in the same manner as is stated in the said article, under the penalty of 200 dollars for each infraction.

ARTICLE XXXVIII.—The captain is equally obliged to present certified manifests of any cargo he may receive at ports where he may stop at, after his first sailing, as well as to have invoices made out agreeably to Article XXX., under the penalty of losing his vessel, and all that belongs to her, for such omission.

Of Consuls and Consular Certificates.

ARTICLE XXXIX.—The consuls and vice-consuls of the republic resident in foreign countries, are required under the strictest penalty of the law punctually to observe all the provisions of this tariff that relate to themselves. At the same time, the republic expects all consuls, vice-consuls, and merchants of friendly nations, to proceed agreeably to these instructions, in the exercise of that protection which in their official capacity it is their duty to extend to the fair trader, and thus protect the captains of vessels and shippers of goods from the injuries to which they would be exposed by any deviation from the forms prescribed in this tariff for their guidance.

ARTICLE XL.—As soon as any captain or super-cargo of a vessel presents the consul with the manifest in triplicate, of the cargo destined to any Mexican port, or when any merchant delivers him his invoices in triplicate, he shall intimate to them that if any alteration is necessary, it must be done immediately without losing sight of the provision relative to alterations contained in Articles XXX. and XXXVII.; for when once the certificate is added, no alteration whatever shall be admitted.

ARTICLE XLI.—By virtue of what is provided in Article XXX., no consul, vice-consul, or merchant, shall certify any manifest or invoice brought to them with interpolations, corrections, scratchings, or erasures; in such case they shall be returned to the owner to be written out afresh; but if it should happen that the sailing of the vessel does not allow time for this, the consular certificate may be added, provided said defects are described in it, whether they occur in manifests or invoices; such defects being interpolations, corrections, scratchings, or erasures. The fees of office in such case, will be double what is commonly paid for a certificate. When any manifest or invoice has not passed these forms, the fine imposed by the Articles XXX. and XXXVII. will be incurred by the captain or consignee.

ARTICLE XLVIII.—Before certifying the manifests of the captains and the invoices of shippers, the consul or vice-consul shall ask if they are aware of the kind of goods, produce, and other merchandise prohibited from entering the republic, and of the penalties imposed by this tariff on those who trade in such merchandise. If they reply in the affirmative, their documents shall be certified; if the contrary, they shall be made aware of them before the certificates are granted.

Section VI.—Of the Arrival of Vessels at the Ports of the Republic.

ARTICLE XLIX.—All foreign vessels arriving at the ports of the republic, shall pay a tonnage duty of twelve rials per ton, and national vessels arriving direct from foreign ports shall be subject also to the same.

The anchorage dues in respect to both are abolished.

ARTICLE L.—When a vessel, after her total discharge, is permitted, agreeably to Article CV., to go from one port to another in the republic, in order to ship merchandise of the country, tonnage duties shall not again be exacted, but in order to enjoy this privilege, it must be understood that she comes direct from a national port, otherwise she shall pay the usual dues.

ARTICLE LII.—The captains or supercargoes of vessels proceeding from a foreign port, on arrival in the waters of a Mexican port, shall not allow any person whatever to come on board until they have been visited by the quarantine officers, and those of the custom-house, whose boats shall carry the national flag. The violation of these provisions shall subject the captain or supercargo to a fine of fifty dollars. An equal fine shall be exacted from any person not belonging to the vessel, who shall either speak or board her before the visit of the aforesaid officers.

The non-payment of the fine shall be remedied by confining the defaulters, who shall also suffer for breaking the quarantine regulations.

ARTICLE LI.—Whether the vessel be in the act of sailing or anchored, as soon

as a revenue officer, or some one authorised by the collector of the customs, should he think proper to appoint such, shall go on board ; the captain or supercargo shall deliver in the same moment to either one or other of the aforesaid officers the packet or packets addressed to the collector agreeably to Article XXXVIII. ; should he fail to do so without being able to produce justifiable proof of some extraordinary accident having occurred during the voyage, he shall be subjected to a fine of 200 dollars, besides the expenses of making new copies of the manifest taken from the third copy which he brings with him as required by the same Article XXXVIII., and from the invoices presented by the consignees, which copies shall be authorised by the collector and comptroller of the custom-house.

If the lost manifest be that which the captain should bring with him, and its absence be not accounted for from a similar cause, he shall be fined fifty dollars ; but should the sealed packet inclosing the two copies of manifest of invoices, together with his own manifest be wanting, and their absence not be honestly accounted for, the vessel and all that belongs to her shall be confiscated, but not the cargo ; if, however, the consignee of any part of it do not present his invoices as required by Article XXXVIII., then this part also shall be confiscated. As a general rule, the non-delivery of the three copies of the ship's manifest, or that of the invoices without a sufficient cause being shown before a revenue law-court, shall be punished with the confiscation of the vessel and that part of the cargo involved in it. Of all which, advice shall be given by the first post to the principal office of customs and direct taxes.

ARTICLE LIII.—At the same time that the captain or supercargo delivers the packet treated of in the foregoing article, to the revenue officer or the agent from the custom-house, he shall also deliver to them a note signed by him, stating the trunks, valises, and any other baggage belonging to his passengers, expressing the names of those to whom they belong. Said note shall also contain the stock on hand of provisions belonging to the vessel. The non-delivery of this note shall subject the captain to a fine of fifty dollars.

ARTICLE LIV.—Should the stock of provisions appear to the collector of the custom-house excessive in the extreme, he shall have power to order it to be deposited in the custom-house stores, directing the vessel to be supplied with what may be necessary for its consumption, and allowing the remainder to be embarked only when there be no risk of fraud.

ARTICLE LV.—The captain or supercargo having omitted to deliver a note stating the baggage and the surplus stock of provisions, it shall be supplied by the revenue or custom-house agents, forming one by taking the particulars as given by the passengers in respect to their luggage ; and by taking an inventory of the stock of provisions at the same time if possible, either before or after the vessel has finished her discharge. The officer who does this, shall add his signature, and it shall be at the option of the collector to fix the time for doing it.

ARTICLE LVI.—Should the vessel have suffered stress of weather during her voyage, causing part of the cargo to be thrown overboard, or having been forced to put into port, and obliged to sell some part of the cargo to meet expenses, then the captain or supercargo shall present a declaration in writing of the circumstances, and deliver the same to the revenue officer, or to the agent of the custom-house, with the sealed packet containing the manifest and invoices.

ARTICLE LVII.—As soon as the collector receives this declaration, he shall communicate it to the mercantile tribunal, which shall immediately proceed to obtain proofs of the alleged facts. If the case be of goods thrown overboard, it will be necessary to prove it, not only by the affirmation of the passengers and crew, but also by the entry of it in the log-book. Similar evidence will be required of the sales made at the port which the vessel may have been forced to put into, and besides a certificate of the fact shall be legalised by a public authority at said port.

ARTICLE LVIII.—On the facts as stated having been proved, no duties shall be exacted on the merchandise thrown overboard or sold.

ARTICLE LIX.—The principal revenue officer or the custom-house officer having received the sealed packet, and the statement as required by Articles XLIV. and XLV., which

the captain or supercargo ought to deliver to one of the two, said officer shall give the captain or supercargo the proper receipt, which shall in every case be a printed form, bearing the custom-house seal. This being done, he shall immediately proceed to seal the hatches and other parts of the hold of the vessel. No guard shall remain on board, excepting when the collector so orders it, which order must be in writing.

ARTICLE LX.—Due vigilance shall be used by the revenue officers both by land and water, in order to prevent communication with the vessel, or fraudulent extraction of the cargo.

ARTICLE LXI.—The principal revenue officer, or the custom-house agent, on landing shall immediately deliver into the hands of the collector the sealed packet containing the manifest and invoices, as well as the list of luggage and stock of provisions, and without any delay the collector shall put into the post-office the packet for the Minister of Finance, in order that it may be forwarded by the first mail, or by an express, should there be one. After this the collector shall compare the documents, and finding them in order, shall sign them.

ARTICLE LXII.—Within twelve business hours from casting anchor, the captain or supercargo shall deliver to the collector and comptroller, or to the person who acts for them, the third copy of his general manifest, as required by Article XXXVIII. He shall make oath in the manner he holds most solemn and in due form before said officers, that all the merchandise on freight and for sale, forming the vessel's cargo, is contained in the manifest, and in the list of luggage and stock of provisions presented by him. Should he refuse to make oath, the collector shall direct the captain of the port to detain the vessel until the custom-house be satisfied that there is no fraud.

ARTICLE LXIII.—Within twelve business hours after the delivery of the correspondence, the consignees shall present their copies of invoices belonging to the cargo, making oath to each with their signatures affixed, that they are correct and in order according to the best of their knowledge and belief, taking into account the corrections which may have been made. Should the consignee refuse to make oath in the manner aforesaid, the merchandise contained in his invoices shall be examined piece by piece, and with the greatest scrutiny.

ARTICLE LXIV. The consignee named in the invoice of the shipper of the goods may refuse to receive them, provided he renounce his right during the twelve business hours granted for presenting the invoices, and provided also he present them at the time of formally refusing the consignment.

ARTICLE LXV.—The time fixed in the preceding article having elapsed without either refusing to receive the goods or presenting the corresponding invoices, it shall be understood that the consignment is accepted.

ARTICLE LXVI.—Should there be several consignees in common, the refusal must be signed by all. But if they are named in order, 1, 2, 3, &c., the refusal of the last in order is equivalent to that of all those who precede.

ARTICLE LXVII.—If the shipper of the goods, whose consignment is refused, be a citizen of the republic, the collector shall inform the mercantile tribunal of it, and it shall name two respectable merchants as consignees.

ARTICLE LXVIII.—If one of these refuse, and the other consent, this one alone shall be the consignee. The refusal of these consignees officially named must be made within two business days after the date of their nomination, otherwise it shall be understood that they have accepted the consignment.

ARTICLE LXIX.—Should both the persons thus appointed refuse, the tribunal shall inform the collector, who shall order the goods to be sold at public auction to the best bidder. From the produce of the sale, the duties shall be deducted, and the balance placed in deposit with the mercantile tribunal on account of the owner.

ARTICLE LXX.—Should the shipper of the goods whose consignment has been refused be a foreigner, the collector shall make an official communication to the consul or vice-consul belonging to the same nation, advising him of it, in order that within the time limited by Article LX., he may state whether or not he will take charge of the goods; after this limited time expires, he shall be considered the consignee.

ARTICLE LXXI.—The consul or vice-consul having declined the charge, the goods shall be disposed of as directed in Articles LXVII., LXVIII., and LXIX.

ARTICLE LXXII.—Any vessel anchoring in a Mexican port, whose object is neither to receive or discharge cargo, but merely to repair damages, or take in provisions for the crew, shall be permitted to remain during the time necessary for this object, but on condition that all the papers belonging to the cargo be exhibited, and that she be subject to all the regulations and precautions established for all other vessels arriving at and destined for these ports. If any transhipment of goods take place without the permission given by the collector to store them during the time of careening, and it be discovered, the vessel shall be dealt with in the manner prescribed in Articles CXX., CXXI., and CXXII., according to the kind of the goods. When the damage is of such a kind as to prevent the vessel continuing her voyage, the collector shall inform the government, in order that it may determine what ought to be done.

ARTICLE LXXIII.—The captain or supercargo, during the twelve business hours allowed him for presenting his manifest, and the consignees, during the twelve hours allowed them for their invoices, may correct at the foot of them any of the defects fineable by Articles XXVIII., XXXIV., and XXXVI., of this tariff, but no defects can be reformed which incur the penalty of confiscation, nor that of 25 per cent augmentation in the duties, as spoken of in the 2nd part of Article XXVIII., nor in respect to the omissions treated of in Article LXXXIV., because these penalties falling on breaches of the law which cannot be attributed to forgetfulness, or involuntary negligence, do not merit indulgence; the aforesaid reforms shall free those who were liable to the corresponding fines.

Section IX.—Of Exportation.

ARTICLE CX.—Foreign vessels shall not be allowed to carry on the coasting-trade, or of "Echelle," in the ports of the republic, but after concluding their discharge in any of them, and having cleared, they may go directly to those open to the coasting or other trade, in order to load dyewood, or any other national produce that is exempted by law from duties of exportation, provided always that they have a certificate in due form from the respective custom-houses of having there paid the tonnage duties.

ARTICLE CXI.—In order to enjoy the privilege granted in the preceding article, all foreign vessels must submit to the visit of the officers of health and search belonging to the port at which they arrive; and should they carry money to make purchases, they must have also a certificate in due form from the respective custom-houses, expressing in figures and writing the amount embarked, and that the export duties appointed by this tariff have been paid.

ARTICLE CXII.—All goods, produce, and national commodities shall be free of all duties on exportation, neither shall they be liable to duties of any kind whatever in their transit through the interior of the country or coastwise, excepting the following, which they shall pay to the national revenue:—

Gold in coin . . . . .	. . . . .	3 per cent.
Gold bullion (quintado) . . . . .	. . . . .	6 "
Silver in coin . . . . .	. . . . .	6 "
Wrought silver (quintado) . . . . .	. . . . .	7 "
Virgin silver, accompanied with certificate of having paid "quinto" duty . . . . .	. . . . .	7 "

ARTICLE CXIII.—The exportation of gold and silver in bars or ingots, in ore, and dust, Mexican monuments and antiquities, and the seed of the cochineal is prohibited under penalty of confiscation; but this prohibition shall not extend to small quantities of the mineral ores and dust intended for specimens as curiosities; but a permit from the government for their exportation will always be required.

ARTICLE CXIV.—The permission to export gold and silver bullion at the ports of Guaimas and Mazatlan shall be continued, under the conditions and formalities prescribed in the decrees of the 10th November, 1841, and 16th February, 1842, gold when exported paying 11 per cent and silver 9½ per cent on the value, besides 1 per cent more for each of duty imposed by the 2nd article of the decree of the 10th March of

this year, when not sent to the mint to be coined. The collection of these duties hereby authorised is exempt from the term of credit allowed by the 101st article.

ARTICLE CXV.—Articles subject to export duty, shipped clandestinely to evade the payment of duty shall be confiscated, if so discovered: should the goods be beyond seizure, a fine equal to the amount of them valued at the market price shall be levied. Should the article have been embarked and the vessel still in port, the respective tribunals shall cause it to be landed, or, in case of resistance, shall proceed against the captain or supercargo of the vessel, imposing penalties on them equal to the degree and circumstances of the offence.

ARTICLE CXVI.—The exportation of goods not liable to duty being effected, without attending to the formalities prescribed, shall be punished with a fine equal to 10 per cent of their value, taken at the market price of the goods.

Section X.—Of other Cases wherein fines or penalties shall be incurred.

ARTICLE CXVII.—Besides the cases specified already in the respective articles of this tariff for levying penalties, there are others which incur them, should the following provisions be infringed:—

ARTICLE CXVIII.—If any foreign vessel, of whatever burden or form, or wherever she may have come from, be found loading or unloading goods of any kind at any coast, river, harbour, bay, or other place not pointed out by this tariff as a port for foreign vessels, she shall for this alone be confiscated, together with the cargo and all that belongs to her. The commander of said vessel shall be fined from 500 to 3000 dollars, according to the value of the cargo, and shall be condemned besides to from six months to five years of labour and banishment. All those who knowingly aid or protect the loading of said vessels, or the carriage of goods by land introduced into or carried out of places described in this article, shall suffer the following fines and punishments, viz.:—the owner, or his deputy, of the carts, beasts of burden, and every thing used in the transport of the effects, and the persons who receive the goods, as well as he who delivers, deposits, takes charge of, or conceals them, shall all undergo the same penalties and punishments as the captain or supercargo of the vessel, and the other shall be punished by paying a tenth-part of the fine, and suffering a tenth of the punishment imposed on the principals.

National vessels shall be liable to the same penalties on coming from a foreign port and entering any of those not open to foreign commerce, if found shipping any effects whatever for a foreign country, and when they are found loading or unloading any kind of goods whatever at ports or places not open to foreign commerce, or to the coasting trade.

ARTICLE CXX.—All merchandise found in ports open to foreign commerce, or the coasting trade, which has been introduced, or be in the act of being introduced, without being subjected to the forms prescribed in this decree, and without observing any of the instructions or regulations issued by the government, shall be confiscated, together with all the boats, canoes, and vessels of every class.

ARTICLE CXXI.—Should said merchandise be prohibited, there shall be imposed besides the fines in Article XCVII;—

ARTICLE CXXII.—Should they be goods of which the government has a monopoly, the importers and exporters who introduce them in another port or coast of the republic, together with him who delivers and receives them, shall suffer, besides the confiscation of the goods, vessels, cars, beasts for riding or of burden, with their harnesses, equipments, and arms, a fine of double the value of the monopolised goods, rated at the price of the monopoly at the respective places, and in default of payment shall be condemned to banishment for the term of two to eight years.

ARTICLE CXIII.—Should false money, whatever the metal may be, be found, besides the confiscation of every thing mentioned in the preceding article, and besides a fine equal to what the false money would represent if legal, the offender shall be punished with all the penalties inflicted by the law on coiners; should the offender be unable to pay the fine, the metal shall be melted, and held, together with all the property that may have been recovered, for the benefit of the informer, and those who seized it.

Passports.—The master of any vessel coming from a foreign port, shall immediately on his arrival in any of the ports of the Republic, declare in writing to the chief of the maritime custom-house, the number of passengers he has on board, the country to which they belong, their trade or occupation, and the place where they embarked. The penalty for neglect to comply with this regulation, or the making a false statement, is 100 dollars, and an additional fine of twenty dollars for each passenger omitted in the report. The vessel may be detained until the penalty be paid. Seamen, whose names are entered on the roll, are not considered as passengers.

Every foreigner shall, before he disembarks, declare his name, age, stature, place of birth, from whence he came, his destination, the object of his voyage, and his profession, which, when executed by the head of a family, will be sufficient for the women and children thereof.

The declaration above must be in writing, and signed by the person making the same.

This formality being complied with, the collector shall give to the foreigner a permit to disembark, subject, however, to the following rules:

1. That no Spaniard, or subject of the Spanish government, shall enter the Republic.

2. That any foreigner provided with a passport from the general government may disembark.

3. That the citizens of the new States of America, and the subjects of nations who may have agents officially accredited to the Republic, may also land, having passports granted, or examined by any Mexican agent at the place of embarkation, or on security of their consul in the port where they may arrive, or on that of any Mexican citizen.

The subjects of nations who are not comprehended in the foregoing paragraph, shall only be permitted to land with a passport of the General government, or with one granted or examined by any Mexican agent residing in a foreign country.

The foreigner to whom such permit is granted, must, within twenty-four hours of having landed, present himself to the civil authority of the port.

Any foreigner permitted to introduce himself into the Republic as aforesaid, shall, within one month thereafter, solicit of the Supreme government, a *carta de seguridad* (card of safety), to remain in, and pass through the same for the period of one year; in order to obtain which, a certificate will be required from the officially accredited agent of the applicant, stating that he is a subject or citizen of the nation he represents, as also his occupation or profession.

Every foreigner, whatever his passport may be, must present himself to the civil authority of the place where he may have resided more than eight days; and, also, whenever he may change his place of residence; non-compliance with that provision subjects the party to a fine of twenty dollars.

Foreigners introduced and established agreeably to the regulations herein prescribed, shall be under the protection of the laws, and enjoy the same civil rights that are conceded by said laws to Mexican citizens, with the exception of acquiring real estates, which can only be held by citizens.*

Any foreigner who shall disembark and introduce himself into the territory of the republic contrary to the provisions of this decree, shall be expelled therefrom. As, also, any foreigner who shall be adjudged guilty of having used, for the purpose of his disembarkation, any document belonging to another, or for having suppressed or falsified any of the statements required, or for having counterfeited or altered any passport or *carta de seguridad*.

Every foreigner wishing to leave the republic, must make application for the proper passport, either to the General government or the civil authority of the state in which he may be.

* This exception does not extend to lands belonging to mining establishments in which aliens may hold shares. Aliens may purchase and hold land by permission of the general government for federal territory, or of the state governments for state territory. By the colonization law, aliens may also hold land, but one-fourth part of the colonists must be Mexicans.

TARIFF OF YUCATAN.

This state having declared its independence the following tariff regulations were adopted by the late Congress.

The ports open to foreign commerce, are Campeachy and Sisal. For exportation only, the ports of Laguna and Bacalar are designated.

The tonnage duty on foreign vessels, from foreign ports, is fixed at one dollar fifty cents per ton, according to her register. Vessels arriving in distress to be subject to charge, except that of their anchorage duty.

The officers, crew, and passengers of all vessels arriving in the port of Yucatan, are forbidden to land without a permit from the visiting health officer, under a penalty of 200 dollars.

The duties on importations, which shall not exceed 200 dollars, to be paid in cash; if exceeding that sum, to be paid by three instalments in the course of ninety days. The duties on exported articles to be paid on the clearance of the vessel.

Prohibited Articles.—The importation of the following articles is prohibited, under the penalty of confiscation, viz.: cotton, indigo, rice, sugar, trunks, hogs, chocolate, cover-lids, sacks, obscene pictures, beans, copper pans, grain, meal, yarn, soap (except scented), lard, molasses and honey, combs, skins (except morocco leather, clothing), salt, tallow, and candles, saddles, straw hats, tobacco, beef, shoes.

Articles Duty Free.—Live animals for improving breeds, newly invented carriages, wooden houses; instruments of agriculture, of science, or of the arts; types for printing; books in sheets or bound; hops, sugar machinery; specie; iron and steel, for machinery; maps, exotic plants, leeches, seeds, turning machinery.

Export Duty.—All articles are free of duty for exportation, except the following:—Gold, in bars, or coin, one per cent; silver, two per cent; logwood, eight per cent. Every captain and supercargo is permitted to export 100 dollars worth of articles, free of duty, on account of the expenses of the vessel.

General Import Duty.—Flour, forty per cent ad valorem; olive, linseed, and whale oil, twenty; steel, twenty-nine; brandy, forty; codfish, twenty; empty bottles, twenty; cotton goods, fifteen; iron chains, fifteen; beef and pork in barrels, twenty; Cashmere goods, twenty; wax, forty; beer and porter in bottles, fifty; nails, fifteen; sheet copper, fifty; glassware, twenty; knives and forks, twenty; linen goods, fifteen; drugs, forty; brandy fruits, twenty; sewing thread, twenty; hams, twenty; liquors, forty; listadees, twenty; apples, twenty; mustard, twenty; muslins, twenty; paper, twenty; perfumery, forty; cheese, twenty; cutlery, twenty; watches, six; clocks, twenty; vinegar, forty; wines, forty.

END OF PART XVI.

